

Role of Workplace Stressors on Mental Health and Wellbeing of Nurses: A Narrative Review

Abstract: This narrative review investigates the impact of workplace stressors on the psychological well-being of Indian nursing professionals. A structured literature search, following PRISMA guidelines, was conducted using PubMed and Google Scholar from January 22 to February 8, 2025. The review focused on studies published between 2013 and 2024 involving registered nurses and nursing students in Indian healthcare settings. The findings indicate that nurses' mental health is influenced by a complex mix of personal, professional, and societal factors. Major stressors include heavy workload, shift duties, inadequate sleep, risk of infection, and conflicts with stakeholders. Unhealthy lifestyle choices and societal pressures, especially among female nurses, further affect their coping abilities. Demographic aspects such as age, marital status, work experience, and educational background also play a significant role in shaping stress response and resilience. Unlike studies from high-income countries, this review sheds light on the unique challenges faced by Indian nurses, including stigma around mental health and lack of institutional support. The study highlights the need for healthcare systems and policymakers to implement targeted mental health programs, build peer support structures, and promote psychologically safe work environments to enhance the well-being of nursing professionals.

Palsuledesai Shripad ¹, Dr. Sodani Prahlad Rai ²,

Dr. Thakur Harshad ³

Affiliation

¹PhD Research Scholar, Indian Institute of Health Management & Research, IIHMR University, Jaipur, India.

²President, Indian Institute of Health Management & Research, IIHMR University, Jaipur, India.

³Professor, School of Health Systems Studies, Tata Institute of Social Sciences, Deonar, Mumbai, India.

Article History:

Received Date : Mar 01, 2025
Revised Date : May 12, 2025
Accepted Date : May 12, 2025
Published Date : May 26, 2025

Introduction

Nursing is a demanding profession, characterized by high emotional labor, heavy workload and exposure to traumatic events. Nurses tend to spend longer time than physicians caring for ill people (Buttler, 2018). Studies have reported that nurses are the most stressed among the healthcare professionals (Chou, 2014, Kumar 2016). Prolonged and unaddressed stress can have detrimental effects on the psychological well-being and leads to multiple mental health issues ranging from anxiety, depression, burnout and post-traumatic stress disorder (PTSD). Occupational stress among nursing professionals is also known to

adversely influence the patient care behaviour (Sarafis, 2016). Mental health of nursing professionals is crucial, not only for their personal well-being but also for the quality of care they provide.

Nursing professionals constitute nearly two-thirds of the health workforce and play a paramount role in healthcare delivery in India. The current ratio of nurse per thousand population in India is 1.7, which is far lesser than the global standard of ~ 3. Such a shortage of professionals increases the workload on the practitioners leading to overburdening and job stress, in all aspects of the work environment.

This narrative review aims to explore the role of workplace stressors on psychological well-being of Indian nursing professionals. We will probe into the specific stressors encountered by nurses in Indian context and examine the impact of such stressors on mental health of this vital population. Furthermore, we aim to explore potential coping mechanisms and interventions aimed at mitigating stress and prompting psychological well-being among Indian nursing professionals.

The Review

Nurses form a backbone of healthcare delivery, yet they experience unhealthy levels of occupational stress, impacting their psychological well-being. Poor mental health impacts nursing professionals and often leads to increased medical error, absenteeism, decreased work performance and increased conflict.⁶ The public health care system relies



heavily on good nursing care, unfortunately, the health status of nursing professionals is often neglected. Studies have demonstrated that due to the strenuous nature of the work the occupational stress is prevalent among nurses. Multiple studies have revealed that conflicts with doctors, colleagues, patients, supervisors and even the bystanders lead to severe stress on the nursing professionals (Dagget, 2016, Gao, 2012, Shama 2014, Starc 2018). Continuous exposure to human suffering, death, fear of spread of infectious diseases, sounds in workplace, and odour, add to the mental trauma of nurses. Sleep deprivation, lack of quality time for family and recreation, worsen the situation further. Identification of the contributing factors and the mental health burden among nurses can help public health managers adopt necessary steps towards prevention.

Aim

To explore the role of workplace stressors on psychological well-being of Indian nursing professionals.

Methodology

Design:

This study is a narrative review to synthesize the existing literature on the link between workplace stress and psychological well-being among nursing professionals in India. We used a systematic approach (PRISM Checklist), to identify, evaluate and analyze the relevant studies published in reputed peer-reviewed journals.

Search Method:

A comprehensive literature search was conducted on open access and free electronic databases, i.e. PubMed and Google Scholar. The search included studies published between 2013 and 2024, using a combination of relevant key words: 'occupational stress', 'nurses', 'workplace stress', 'psychological distress', and 'wellbeing'. Our initial search retrieved 5,396 potentially relevant studies (Figure 1).

Inclusion and Exclusion Criteria:

Inclusion criteria:

- i. Original research articles, reviews, and meta-analyses
- ii. published in English between 2013-2024

- iii. measured or discussed psychological well-being, including but not limited to anxiety, depression, burnout, job satisfaction, and quality of life
- iv. among registered nurses or nursing students working in any healthcare setting in India.

Exclusion criteria:

- i. case reports, editorials, and opinion pieces
- ii. published in language other than English and before 2013 and after 2024
- iii. not directly related to psychological well-being
- iv. among population other than nursing professionals and population outside of India.

Search Outcome:

Applying the inclusion and exclusion criteria, a significant number of studies were excluded. We found studies that addressed the occupational stress but did not discuss psychological well-being indicators such as anxiety, depression or burnout, hence they were excluded from our review. Similarly, studies which examined healthcare professionally, but did not study specific data on nurses were excluded too. A large number of studies represented sample population from outside India and hence were excluded from the current review.

We identified twelve articles (Table I) and downloaded the full-text articles of shortlisted articles using a free access database.

Quality Appraisal:

The included studies were assessed for relevance and methodological quality. We prioritized studies with robust research design, valid measurement tools and focus on psychological well-being of Indian nursing professionals.

Data Abstraction:

Key information was extracted from the selected studies, including:

- Year of publication: 2013-2024
- Sample Size: n=5,141 nursing professionals

- Gender distribution: 84% female, 16% male
- Mean age range: 20.1 to 43.2 years
- Marital Status variability: 3.3% to 77.5% married
- Work setting: 53% of nurses from private hospitals

Synthesis:

The relationship between nurse's psychological wellbeing and factors like, i) demographic and professional factors, ii) place of duty and workload, iii) work shift and lack of sleep, iv) risk of infection and v) stakeholder conflict (peers, doctors and patients), vi) Coping mechanism and role of management. The intersection of workplace stressors was classified in three broad categories a) demographic and personal, b) workplace related and c) stakeholder management and the interplay of these is mapped. (Figure 2).

Results

The workplace stressors vary across different working areas or place of duty, e.g. emergency/ICU, busy department or surgical ward. Excessive workload due to staffing shortage, shift duties due to the nature of work, are the common workplace stressor reported by all studies. We analyzed the selected studies to identify stressors that are not commonly reported. Lack of sleep was reported by 35% to 80% of the participants, while conflict with peers and doctors was reported by 5% to 77% of participants. Participants ranging from 42.9% to 54.2%, reported fear of acquiring infection as one of the major workplace stressors while inadequate salary was reported by 63.8% to 75% participants. Conflict with patients and their relatives was reported to be a cause of stress by participants ranging between 21% to 42.4%. More than half of the participants, ranging from 53.2% to 57%, reported a lack of appreciation at the workplace.

The impact of the workplace stressors was evident in the levels of psychological distress, stress, anxiety and other symptoms reported across selected studies. Stress was reported by participants ranging from 15.98% to 72.06%, while anxiety was reported by 4.39% to 74% of participants across selected studies. Psychological distress was reported by 52.9% to

79.1% of participants indicating high awareness and impact. Symptoms of depression were reported by participants ranging from 10.08% to 70.8% of participants. Nearly fifty percent of participants ranging from 46.7% to 50.0% reported that workplace stress affects their family relationships, while participants ranging from 9.7% to 37.4% reported symptoms of burnout.

DISCUSSION

Occupational Stress in nursing

'Stress is an internal state, which can be caused by many causative factors' (Cox, 1994). Stress is defined as "a relationship between the person and environment that is appraised by the person as taxing or exceeding his resources and endangering his well-being" (Lazarus and Folkman 1984). Occupational stress is an acknowledged health issue in health care workers (Burbeck, 2002). Nursing is often identified as a profession with high stress levels (Xianyu, 2006). Lee (2003) and Farrington (1995) reported, 'Job stress brings harmful impacts on nurses health and affects their abilities to cope with the job demands, impairing the quality of care and efficacy of health service delivery'. Stress affects an individual's health, wellbeing and job satisfaction while affecting the organization level in terms of absenteeism and staff turnover, which in turn may impact the quality of patient care (Price, 1981 and Cronin Stubbs 1985).

According to Drapeau (2012), 'Psychological distress, a state of emotional suffering characterized by symptoms of anxiety and depression that are widely used as an indicator of mental health'. As professionals nurses are required to spend mental, emotional and physical energy on caring for their patients. They often face a conflict with the hierarchy of authority of doctors, matrons, families or caretakers and hospital administrators. Divinakumar (2014) reported, '21% of sample reporting minor mental health problems like anxiety and depression and opined that for nurses working in transferable job in a government setup, paperwork, interpersonal conflict within team, unpredictable and distant postings, decreased social perception and respect, reduced time for family and inadequate family support and lucrative remunerations

abroad tend to compound the stress at workplace'. Kaushik (2021) observed that, 'the underlying cause for job stress varies across various working areas. While nurses deployed in the intensive care felt stressed as their salary was perceived to be inadequate for their services, for nurses working in non-intensive areas stress seem to arise due to conflict with patients, lack of equipment and non-availability of drugs. Nurses in the private sector experienced lower job satisfaction, were more anxious and had greater job stress due to conflicts with stakeholders e.g. doctors or patients. On another hand, the nurses from the government sector were stressed due to fear of acquiring infectious diseases from the hospital as compared to their counterparts in private sector (Kaushik, 2021).

According to Davey (2019). 'work-related stress generally reduces the quality of nurses' working, increases minor psychiatric morbidity, and may contribute to some form of somatic or physical illness. Mental health experience can be detrimental influencing psychological well-being, job satisfaction, and physical health. They report that the majority (89%) of staff nurses to be under stress ranging from mild to severe.'

Demographic and professional factors

Demographic and professional factors including age, gender, marital status, educational qualification and work experience influence the mental health and well-being of nurses. Menon (2022) reports that. 'Younger nurses (≤ 34 years), single, in a higher income group (\geq Rupees 20,000), not residing with their family and more qualified had higher emotional exhaustion.'

Gender

Gender differences also play a role, with female nurses often navigating additional societal and familial expectations that impact their mental well-being. Menon (2022) reported that the risk of psychological distress is higher in females (56.1%) as compared to males (49.2%). Kayaroganam (2022) suggest that dual burden of caring for family and job responsibilities, may increase women's vulnerability to stress and this could be behind the higher distress among women nurses.

Age

Younger nurses may experience higher stress levels due to limited clinical exposure, while older nurses might face burnout from prolonged service. Divinakumar (2014) reported. 'Negative correlation between age and years of work experience with stress and burnout'. They observe that nurses who have more experience probably develop better coping skills than those with less experience. They reported a decrease in the proportion of nurses with burnout with each decade, with least burnout reported in 51-60 years of age group.

Marital Status

Marital status can contribute both protective and stress-inducing effects, as married nurses may benefit from social support but also face work-life balance challenges. Tessy (2013) reported., 'significant association between stress and marital status, with married subjects being more stressed than subjects who are single. This may be due to the additional responsibilities of the married life which in turn may contribute to the workplace stress.'

Work experience

The number of years in practice affects mental health, as early-career nurses may struggle with workplace adaptation, whereas experienced nurses may deal with cumulative stress or compassion fatigue. 'Prevalence of psychological distress was reported to be significantly higher among those having less than ten years of work experience (31.8%) compared to that in those with more than ten years of work experience (18%)', by Kayaroganam (2022).

Qualification

Educational qualifications shape coping mechanisms, professional confidence, and adaptability, influencing stress resilience. Tessy (2013) reports that nurses with General Nursing and Midwifery qualification experienced more stress compared to higher qualifications. It is observed that patients admitted in special wards are usually from higher socio-economic class and meeting the demands of such a service receiver leads to stress among nurses who are tasked to care for such patients.



Place of duty and workload

Woo (2019) reported, 'studies conducted among healthcare providers suggest that nurses are at higher risk of burnout than other healthcare providers due to their close contact with affected patients for longer hours.' The nature of a nurse's place of duty and workload significantly impacts their mental well-being, as different healthcare settings present unique stressors and demands. Nurses working in high-intensity environments like the Intensive Care Unit (ICU) often experience heightened psychological strain due to the constant exposure to seriously ill patients, speedy decision-making, and the emotional toll of life-and-death situations. In contrast, those in general wards or surgical units may face a different set of challenges, such as managing a high patient load, coordinating post-operative care, and handling administrative tasks. While ICU nurses may struggle with burnout and emotional exhaustion, ward nurses often contend with workload-induced stress and physical fatigue. In a study by Amin (2015), '68.29% of nurses working in intensive care units were stressed as compared to the lower proportion of 50.8%'

In a study aimed at assessing psychological distress and burnout among healthcare workers during COVID-19 pandemic, Menon (2022) reported that more than half of the frontline health workers responsible for providing intensive care, those involved in tracing, screening and transporting patients were at risk of psychological distress and needed further psychiatric evaluation. Studying the influence of psychological morbidities among nurses in a designated COVID-19 tertiary care ward, Garg (2020) observed, 'it occurred mostly in younger participants (<40 years of age), as younger nurses were deputed as frontline workers and their lack of experience in anti-pandemic work made them vulnerable to the infection. It was also observed that the perception of high infection risk in their jobs was an influential factor for higher risk of anxiety and stress among nurses.'

Shrivastava (2024) who studied the effect of shift work on dietary habits and occupational stress among nurses in a tertiary care center, observed, 'majority of nurses (88%) reported work overload as a major contributor to their occupational stress.' In another study,

Najimi (2012) reported. 'Role duality, physical environment and range of roles as most important factors for job stress, in female nurses.' Tessy (2013) reported, "that nurses working in special wards experience higher degree of stress and found significant association between Stress and area of work pairs of Medical: ICU, Surgical: OBG, Surgical: ICU, ICU: Special and ICU: Casualty". According to Davey (2019) "the department in which the staff nurses were posted had a statistically significant positive impact on the level of stress among them. It was found that a large number (42%) of nurses posted in ICU/emergency department suffered from stress followed by those posted in medicine and surgery department (15% each)". Addriaenssens (2011) observed, "job demands have a significant impact on well-being resulting in fatigue, psychosomatic symptoms, and emotional exhaustion. Different work settings may pose varying levels of job demands. Nurses who worked in the emergency department reported higher job demands and lower decision-making authority than those in pediatric palliative care unit." "Nurses of surgical and internal wards showed significantly higher level of occupational stress in most scales of occupational stress, except relationship, compared with nurses working in psychiatric wards" according to Sahraian (2013).

"Work and administrative tasks are rated to be overload when the nurses do not have enough time or resources to meet the demands placed on them. A significant proportion of nurses working in the ICU, acute medical and surgical wards, family wards had work related burnout. These wards involve rapid turnover of patients, more direct patient care related duties along with administrative work resulting in increased stress", according to Divinakumar (2014). Other underlying factors that induce stress often include, conflict with patients, hostility of patient's relatives, handling terminally ill patients, non-compliance of visiting hours, work home conflict, insecurity of children at home while on night duty and lack of safety in male wards. "None of the Operation Theater Nurses in our study did have burnout. This was possibly due to the clear-cut tasks in OT procedures as regards patient outcome and their improved job satisfaction and motivation levels", (Divinakumar 2014).

Work shift and lack of sleep

The circadian rhythm synchronizes activity and relaxation throughout twenty hours. Shift work often disturbs circadian rhythms, causing stress, lack of appetite, poor dietary habits and can lead to an increased risk of anxiety, depression, obesity, diabetes and other diseases.

Shift work and irregular schedules are inherent to nursing, often disrupting sleep patterns and significantly impacting mental well-being. Nurses working night shifts or rotating schedules frequently experience sleep deprivation, leading to chronic fatigue, mood disturbances, and impaired cognitive function. The lack of restorative sleep heightens stress levels, reduces emotional resilience, and increases the risk of anxiety, depression, and burnout. Over time, the constant disruption of the body's natural circadian rhythm can also affect physical health, further exacerbating mental strain.

More than fifty (51.6%) of the participants reported that job affects their sleep good part of the time or most of the time (Kaushik 2021). Six or more- night shifts per month could be one of the reasons for poor sleep quality reported by 42.8% of participants. (Kayaroganam 2022). Dodia (2020) quote, "The reason for the poor sleep quality could be due to six or more-night shifts per month at the level of nursing officers and higher workplace stress."

According to Shrivastava (2024), "night shift workers reported to consume fewer main meals but were more likely to consume snacks during the night duty. Shift work has several negative effects on the health and well-being of nurses. These negative effects are generally related to inadequate and bad food intake as well as increased stress, which can be caused by either an excessive amount of work or poor sleep, or both. Disrupted sleep-wake cycle and lack of time for physical activity influenced the eating habits of all nurses."

Risk of infection

The constant risk of infection is a significant stressor affecting nurses' mental well-being, particularly those working in high-risk environments such as infectious disease wards, ICUs, and emergency departments. Exposure to contagious illnesses, coupled with concerns

about personal safety and the risk of transmitting infections to family members, contributes to heightened anxiety and psychological distress.

During outbreaks or pandemics, this fear intensifies, leading to increased emotional exhaustion and burnout. The pressure of adhering to strict infection control protocols, prolonged use of personal protective equipment (PPE), and witnessing the suffering of infected patients further add to mental strain. Over time, this persistent stress can lead to feelings of helplessness, decreased job satisfaction, and even post-traumatic stress symptoms.

Jose (2020) report, "Eighty six percent of the frontline nurses in emergency feared transmitting COVID-19 to family members, even after they comply with infection prevention practices. The fear of infection to self and family resulted in the frontliners more susceptible to anxiety and stress during the pandemic.

Increased patient physical workloads lead to severe burnout in the form of emotional exhaustion, depersonalization, and reduced personal accomplishment". According to Kayaroganam (2022). "a higher level of severe to dangerous stress and psychological distress could be due to poor nurse-patient ratio, high patient turnover, and frequent night duties at the Nursing Officer (lowermost) level."

Stakeholder conflict (peers, doctors and patients)

The relationships and interactions that nurses navigate daily—with doctors, peer nurses, hospital staff, patients, and their relatives—play a crucial role in shaping their mental well-being. Nurses often find themselves pulled in multiple directions, balancing the expectations and demands of various stakeholders while ensuring quality patient care. Collaboration with doctors requires clear communication and swift decision-making, sometimes under high-pressure conditions, which can lead to stress if dynamics are strained or if nurses feel undervalued. Peer relationships, while a source of support, can also be a source of workplace tension due to hierarchical structures, competition, or team conflicts. Additionally, interactions with patients and their families add another layer of emotional strain, as nurses must manage their expectations, provide reassurance, and sometimes handle difficult

conversations about prognosis or care limitations.

Kaushik (2021) observe, “significant association between stress, anxiety and depression in nurses and conflicts with nursing supervisors”. According to Davey (2019) “present day nurses value the patient–nurse relationship, but they do not always have the power or opportunity to meet the patients’ needs for care”. Adib-Hajbaghery (2007) observed, “participants (staff nurses) mentioned about the stressful items such as “mistrust of the patients and their relatives and arguing with them,” “tolerating abuse and insult,” and “ingratitude of some of the patients and their families.”

According to Konstantinos (2008), “poor professional relationships have been identified as frequent stressor for mental health nurses working in hospitals. Thus, nurses who have low levels of stress will have collaborative relationships with doctors and other nurses, and those with high stress scores will have poor relationships with colleagues.” Among common workplace stressors, Davey (2019) reported, inadequate salary, poor attitude of male patients, poor hygiene conditions at hostel, absence of separate washroom for female nurses and posting in busy departments among other.

Coping mechanism and role of management

To cope with workplace stress, nurses often rely on a mix of personal and professional strategies, including peer support, mindfulness, exercise, and structured debriefing sessions. However, hospital management plays a critical role in fostering a supportive environment that prioritizes nurses’ mental well-being. Implementing fair shift scheduling, ensuring adequate staffing, providing mental health resources, and offering regular resilience training can help mitigate stress. Encouraging open communication, fostering positive workplace relationships, and creating peer support networks can also strengthen emotional well-being. Additionally, hospitals must recognize and address the psychological toll of high-risk environments by providing counseling services and stress management programs. By investing in these measures, healthcare institutions not only support their nursing workforce but also enhance patient care quality, as mentally well

nurses are better equipped to provide compassionate, effective treatment.

Sreedharan (2024) observe, “The experience of somatic symptoms was the strongest predictor of mental health adversities within the current sample of nurses, accounting for nearly 30% of the variance in depression and anxiety symptoms and 8.5% of the variance in stress. Our study demonstrates that somatic experiences represent a robust predictor of mental health”.

Offering interventions to help nurses work-life balance can improve their psychological well-being according to Kayaroganam (2022). The study findings can be applied in planning various staff development programs for nurses. Jose (2020) state, “nurse managers in India must take necessary initiatives’ earliest to mitigate the burnout and stress among nurses by creating a harmonious and healthy working environment to improve nurses’ resilience skills and behaviors in response to the heavy workload and emotional overburden of the pandemics”.

Dasgupta (2020) recommend, “Understanding the nature and sources of stress and ways of coping will help creating a supportive learning environment, effectively plan educational programs and curricula, and thereby preparing the future workforce for providing quality patient care”. Shrivastava (2024) recommend. “Awareness regarding stress management and importance of good diet should be given to improve the health status of nurses”. Tessy (2013) suggest, “Reducing the effect of environmental stressors such as workload, staffing, and assisting nurses to balance priorities may be effective interventions. Attempts to deal with the sources of stress and their consequences need to be made at individual, inter-personal, and organizational levels”. Davey (2019) recommend, “It is important to gain more knowledge into nurses’ working conditions, occupational stress, and job satisfaction knowledge that might be used to decrease their occupational stress and increase their job satisfaction and to plan out stress busters for them.”

The hospital management should consider sleep hygiene interventions, 30-minute napping policy in night shift and shift reschedule plan as strategies to improve sleep quality and sleep health of nursing staff. To reduce stress at

the workplace, psychosocial intervention can be useful for treating stress-related disorders. Incorporating evidence-based educational programs and setting up a professional counseling unit can help to overcome stress at the workplace.

Conclusion

In conclusion, the mental well-being of nurses is shaped by a complex interplay of factors, including workload, shift schedules, workplace relationships, risk of infection, and the emotional demands of patient care. These challenges contribute to stress, burnout, and reduced job satisfaction, ultimately affecting both nurses and the quality of care they provide. Addressing these issues requires a proactive approach from hospital management, focusing on fair work policies, mental health support, and a culture of collaboration and well-being.

This narrative review provides a comprehensive analysis of these contributing factors, synthesizing existing research to highlight key challenges and potential interventions. By examining these insights, the review informs hospital policies, suggest future research and contributes to the development of strategies that prioritize nurses' mental health. We believe investing in nurses' well-being creates a more resilient workforce, leading to improved patient outcomes and a more sustainable healthcare system.

Limitations of the Study

Since the current narrative review included only open-access and free electronic databases, there could be a potential selection bias towards subscription-based journals. Exclusion of literature published in non-English language may have overlooked valuable local perspectives regarding the mental health of nurses. As we accessed only PubMed and Google scholar, current review may not have captured studies that are indexed in other databases. The review considered articles published during 2013 and 2024, thereby excluding historical trends or foundational research. The review focused on quantitative studies potentially excluding qualitative research on the subject under review.

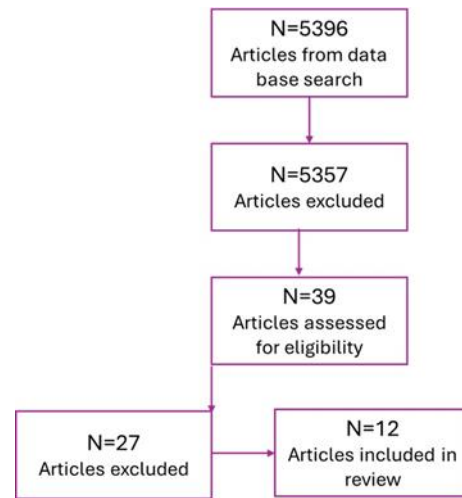


Figure 1: Data base search- PRISMA Flow Diagram

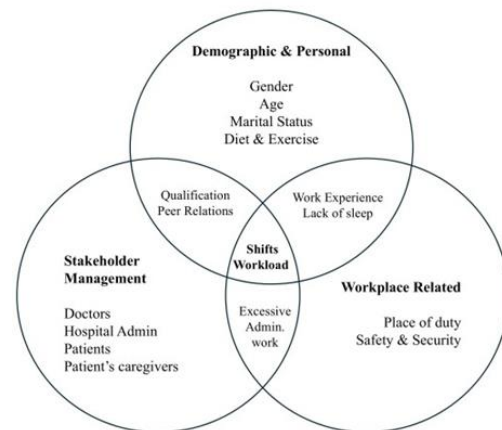


Figure 2: Intersection of workplace stressors among nursing professionals

Table 1: Reviewed Literature

Author & Year	Journal	Title	Aim	Sample Size	Study Type	Location	Hospital type	Conclusion
Dixgupta, A. <i>et al.</i> (2020)	Indian Journal of Community Medicine	Perceived Stress and Coping Behavior among Future Nurses: A Cross-Sectional Study in West Bengal, India	To explore the levels and sources of perceived stress and coping behavior among undergraduate nursing students in West Bengal.	182	Cross-sectional	Medinipur (WB)	Nursing College	Stress from academics and clinics were high among nursing students. As they are the future carers, it is apt to intervene early to mitigate their stress and enhance their coping skills during professional training and practice.
Davey A <i>et al.</i> , 2019	Journal of Family Medicine and Primary Care	Is work-associated stress converted into psychological distress among the staff nurses: A hospital-based study	To monitor the level of stress among staff nurses; the association between sociodemographic determinants and working environment and stress; and impact on their mental well-being in terms of somatic symptoms, anxiety/insomnia, social functioning, and job satisfaction.	100	Cross Sectional	Meerut	Tertiary Care	Assessing stress and job satisfaction is not a one-time action; it requires continuous monitoring and evaluation. Therefore, it is important to further explore how work-associated stress affects nurses, and what factors in their working environment cause the greatest burden.
Dhivakumar KJ <i>et al.</i> (2014).	International Journal of Research in Medical Sciences	Perceived stress, psychological well-being and burnout among female nurses working in government hospitals	To study the Burnout among government employed Female Nurses in India	288	Cross sectional survey	Central India	Tertiary Care	Prevalence of Burnout in government employed Female Nurses in India was less when compared to prevalence of burnout in nurses reported in western countries. The perceived Stress and Burnout was more in Nurses of 34-50 years age group, and being employed in the acute wards.
Garg S. <i>et al.</i> (2020)	Industrial Psychiatry Journal	Prevalence of psychological morbidities and their influential variables among nurses in a designated COVID-19 tertiary care hospital in India: A cross-sectional study	To evaluate the prevalence of anxiety and stress among nurses in a designated COVID-19 hospital and variables that influence these psychological problems.	209	Cross sectional	Sonapat	Tertiary Care	Deteriorating the psychic health of nurses is one of the major outcomes during the COVID-19 pandemic in India which warrants the necessity of providing psychological support to nurses and controlling the risk factors related to these problems.
Jose S. <i>et al.</i> (2020)	Indian Journal of Critical Care Medicine	Burnout and Resilience among Frontline Nurses during COVID-19 Pandemic: A Cross-sectional Study in the Emergency Department of a Tertiary Care Center, North India	To assess the burnout and resilience among frontline nurses in the emergency department of a tertiary care center in North India during COVID-19 pandemic	120	Cross Sectional	Ghandigarh	Tertiary Care	Effective interventions for improving resilience are needed to relieve nurses' burnout and workplace stressors. Also, the administration should ensure a healthy workplace and adopt a positive attitude and harmonious relationship with the frontline workers in the mitigation of the pandemic.
Jose Tessa <i>et al.</i> (2013)	IOSR Journal of Nursing and Health Science	A descriptive study on stress and coping of nurses working in selected	To determine stress and coping of nurses and to find its association with selected variables	1040	Descriptive survey	Udupi & Mangalore	Tertiary Care	Significant association is found between stress and professional qualification, marital status, and area of work. There is significant association between coping and marital status. There was no significant association between coping and other demographic variables
Kanishk A. <i>et al.</i> (2021)	Indian Journal of Occupational and Environmental Medicine	Depression, Anxiety, Stress and Workplace Stressors among Nurses in Tertiary Health Care Settings	To assess depression, anxiety and stress among nurses and analyse their association with workplace stressors.	421	Cross Sectional	Mangalore	Tertiary Care	Prevalence of depression, anxiety and stress was high. Workplace stressors varied across different working areas. Interventions need to be tailored accordingly
Kavayogannam <i>et al.</i> (2022)	Journal of Family Medicine and Primary Care	Prevalence and correlates of psychological distress among nurses in a teaching institute in South India	To determine the prevalence of psychological distress and its associated factors among nurses working in a teaching institute in Pudukkudery	1217	Cross Sectional	Pudukkudery	Tertiary Care	high prevalence of psychological distress among nurses, especially among women, those having poor sleep quality, and those having severe to dangerous level of workplace stress. We highlight that reducing workplace stress and improving sleep hygiene can be vital in improving mental health status
Menon GR <i>et al.</i> (2022)	PLOS ONE	Psychological distress and burnout among healthcare worker during COVID-19 pandemic in India—A cross-sectional study	To determine the burnout levels and factors associated with the risk of psychological distress among healthcare workers (HCW) engaged in the management of COVID-19 in India.	987	Cross Sectional	Changanassery and Coimbatore (Odisha), Mumbai (Maharashtra), Ahmedabad (Gujarat), Noida (Uttar Pradesh), South Delhi, Pathanamthitta and Kasargod (Kerala), Chennai (Tamil Nadu), Labbaikur, Madhya	Tertiary Care	Identified key factors that could have been likely triggers for psychological distress among healthcare workers who were engaged in management of COVID cases in India
Shrivastava R <i>et al.</i> (2024)	Journal of Family Medicine and Primary Care	Effect of shift work on dietary habits and occupational stress among nurses in a tertiary care centre: An observational study	To analyse the effect of shift work on occupational stress, nutritional habits, and the overall health of nurses in a tertiary care centre in Central India	90	A descriptive study	Sagar, MP	Tertiary Care	This study highlights the harmful effects of shift work on health of nurses. These negative effects are usually linked to poor diet and stress, which can be induced by overwork, poor sleep, or both. This study found that high workload is the main cause of occupational stress. Sleep disruption, lack of exercise and excess work load are major contributors for occupational stress and unhealthy eating habits. More awareness
Sreedharan S. <i>et al.</i> 2024	Cureus	Mental Health of Frontline Nurses in India During COVID-19: A Multisite Study	To evaluate the mental health responses of Indian nurses working during the COVID-19 pandemic.	387	Cross Sectional	Mangalore	Tertiary Care	Somatic symptoms can be indicators of mental health adversity. Early detection and supportive interventions need to be taken into account.
Zacharia IS. <i>et al.</i> (2023)	Invest. Educ. Enferm	Effectiveness of Resiliency and Recovery Program on Compassion Fatigue among Nursing Officers working in selected Hospitals in India	To evaluate the effectiveness of Resiliency and Recovery Program on Compassion Fatigue level of Nursing Officer from selected hospitals of Pune City (India)	100	Quasi Experimental	Pune	Tertiary Care	Resiliency and Recovery Program had a significant impact on Compassion Fatigue, leading to an increase in Compassion Satisfaction, and a reduction in Burnout and Secondary Traumatic Stress. Inculcating Resiliency skills in nursing officers can help them in reducing compassion fatigue and thus aids in health promotion.

References

- [1] Addriaenssens, J., De Gucht, V., Vander Doef, M., & Maes, S. (2011). Exploring the burden of emergency care: Predictors of stress health outcomes in emergency nurses. *Journal of Advanced Nursing*, 67, 1317–1328.
- [2] Adib-Hajbaghery, M. (2007). Factors facilitating and inhibiting evidence-based nursing in Iran. *Journal of Advanced Nursing*, 58, 566–575.
- [3] Amin, A. A., Vankar, J. R., Nimbalkar, S. M., & Phatak, A. G. (2015). Perceived stress and professional quality of life in neonatal intensive care unit nurses in Gujarat, India. *Indian Journal of Pediatrics*, 82, 1001–1005.
- [4] Burbeck, R., Coomber, S., Robinson, S. M., & Todd, C. (2002). Occupational stress in consultants in accident and emergency medicine: A national survey of levels of stress at work. *Emergency Medicine Journal*, 19, 234–238. <https://doi.org/10.1136/emj.19.3.234>
- [5] Buttler, R., Monsalve, M., Thomas, G. W., Herman, T., Segre, A. M., & Polgreen, P. M., et al. (2018). Estimating time physicians and other health care workers spend with patients in an intensive care unit using a sensor network. *American Journal of Medicine*, 131, 972.e9–972.e15.
- [6] Chou, L. P., Li, C. Y., & Hu, S. C. (2014). Job stress and burnout in hospital employees: Comparisons of different medical professions in a regional hospital in Taiwan. *BMJ Open*, 4, e004185.
- [7] Cox, T., & Griffiths, A. (1994). The nature and measurement of work stress: Theory and practice. In N. Corlett & J. Wilson (Eds.), *Evaluation of human work: A practical ergonomics methodology* (pp. [pages]). Taylor and Francis.
- [8] Cronin-Stubbs, D., & Brophy, E. B. (1985). Burnout: Can social support save the psychiatric nurses? *Journal of Psychosocial Nursing and Mental Health Services*, 23, 8–13.
- [9] Zacharias, B. S., & Upendra, S. (2023). Effectiveness of Resiliency and Recovery Program on Compassion Fatigue among Nursing Officers working in selected Hospitals in India. *Investigación y Educación en Enfermería*, 41(3), e06. <https://doi.org/10.17533/udea.iee.v41n3e06>
- [10] Dagget, T., Molla, A., & Belachew, T. (2016). Job related stress among nurses working in Jimma Zone public hospitals, South West Ethiopia: A cross sectional study. *BMC Nursing*, 15, 39.
- [11] Dasgupta, A., Podder, D., Paul, B., Bandyopadhyay, L., Mandal, S., Pal, A., et al. (2020). Perceived stress and coping behavior among future nurses: A cross-sectional study in West Bengal, India. *Indian Journal of Community Medicine*, 45, 204–208.
- [12] Davey, A., Sharma, P., Davey, S., & Shukla, A. (2019). Is work-associated stress converted into psychological distress among the staff nurses: A hospital-based study. *Journal of Family Medicine and Primary Care*, 8, 511–516.
- [13] Divinakumar, K. J., Pookala, S. B., & Das, R. C. (2014). Perceived stress, psychological well-being and burnout among female nurses working in government hospitals. *International Journal of Research in Medical Sciences*, 2, 1511–1515.
- [14] Dodia, P., & Parashar, N. (2020). Shift-work job stress, psychological distress, and job satisfaction among employees. *International Journal of Indian Psychology*, 8, 1215–1231.
- [15] Drapeau, A., Marchand, A., & Beaulieu-Prévost, D. (2012). Epidemiology of psychological distress. In *Mental Illnesses – Understanding, Prediction and Control*. IntechOpen.
- [16] Farrington, A. (1995). Stress and nursing. *British Journal of Nursing*, 4, 574–578. <https://doi.org/10.12968/bjon.1995.4.1.0.574>
- [17] Gao, Y., Pan, B., Sun, W., Wu, H., Wang, J., & Wang, L. (2012). Depressive

- symptoms among Chinese nurses: Prevalence and the associated factors. *Journal of Advanced Nursing*, 68, 1166–1175.
- [18] Garg, S., Yadav, M., Chauhan, A., Verma, D., & Bansal, K. (2020). Prevalence of psychological morbidities and their influential variables among nurses in a designated COVID-19 tertiary care hospital in India: A cross-sectional study. *Indian Psychiatry Journal*, 29, 237–244.
- [19] HIC Team. (2017). Growth of Nursing in India: Historical and Future Perspectives. *Healthy India Chronicle*. <https://healthyindiachronicle.in/shri-t-dileepkumar-president-indian-nursing-council-growth-nursingindia/>
- [20] Jose, S., Dhandapani, M., & Cyriac, M. C. (2020). Burnout and resilience among frontline nurses during COVID-19 pandemic: A cross-sectional study in the emergency department of a tertiary care center, North India. *Indian Journal of Critical Care Medicine*, 24(11), 1081–1088.
- [21] Kaushik, A., Ravikiran, S. R., Suprasanna, K., Nayak, M. G., Baliga, K., & Acharya, S. D. (2021). Depression, anxiety, stress and workplace stressors among nurses in tertiary health care settings. *Indian Journal of Occupational and Environmental Medicine*, 25, 27–32.
- [22] Kayaroganam, R., Sarkar, S., Satheesh, S., Tamilmani, S., Sivanantham, P., & Kar, S. S. (2022). Prevalence and correlates of psychological distress among nurses in a teaching institute in South India. *Journal of Family Medicine and Primary Care*, 11, 6765–6771.
- [23] Konstantinos, N., & Christina, O. (2008). Factor influencing stress and job satisfaction of nurses working in psychiatric unit: A research review. *Health Science Journal*, 2(4).
- [24] Kumar, A., Pore, P., Gupta, S., & Wani, A. (2016). Level of stress and its determinants among intensive care unit staff. *Indian Journal of Occupational and Environmental Medicine*, 20, 129–132.
- [25] Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- [26] Lee, J. K. (2003). Job stress, coping and health perceptions of Hong Kong primary care nurses. *International Journal of Nursing Practice*, 9, 86–91. <https://doi.org/10.1046/j.1322-7114.2003.00413.x>
- [27] Melnyk, B. M., Tan, A., Hsieh, A. P., Gawlik, K., Arslanian-Engoren, C., Braun, L. T., et al. (2021). Critical care nurses' physical and mental health, worksite wellness support, and medical errors. *American Journal of Critical Care*, 30, 176–184.
- [28] Menon, G. R., Yadav, J., Aggarwal, S., Singh, R., Kaur, S., Chakma, T., et al. (2022). Psychological distress and burnout among healthcare worker during COVID-19 pandemic in India—A cross-sectional study. *PLoS ONE*, 17(3), e0264956. <https://doi.org/10.1371/journal.pone.0264956>
- [29] Najimi, A., Goudarzi, A. M., & Sharifirad, G. (2012). Causes of job stress in nurses: A cross-sectional study. *Iranian Journal of Nursing and Midwifery Research*, 17, 301–305.
- [30] Price, J. L., & Mueller, C. W. (1981). *Professional turnover: The case for nurses*. New Medical and Scientific Books.
- [31] Sahraian, A., Davidi, F., Bazrafshan, A., & Javadpour, A. (2013). Occupational stress among hospital nurses: Comparison of internal, surgical, and psychiatric wards. *Iranian Journal of Critical Care Nursing and Midwifery*, 1(4), 182–190.
- [32] Sarafis, P., Rousaki, E., Tsounis, A., Malliarou, M., Lahana, L., Bamidis, P. (2016). The impact of occupational stress on nurses caring behaviors and their health related quality of life. *BMC Nursing*, 15, 56.
- [33] Sharma, P., Davey, A., Davey, S., Shukla, A., Shrivastava, K., & Bansal, R. (2014). Occupational stress among staff nurses: Controlling the risk to health. *Indian Journal of Occupational and Environmental Medicine*, 18, 52–56.
- [34] Shrivastava, R., Shrivastava, P., Pathak, T., Nagar, J., Jiwane, R., & Chouhan, S., et al. (2024). Effect of shift work on dietary



- habits and occupational stress among nurses in a tertiary care centre: An observational study. *Journal of Family Medicine and Primary Care*, 13, 2242–2247.
- [35] Sreedharan, S., Benzouak, T., Rao, S., et al. (2024, February 28). Mental health of frontline nurses in India during COVID-19: A multisite study. *Cureus*, 16(2), e55181.
<https://doi.org/10.7759/cureus.55181>
- [36] Starc, J. (2018). Stress factors among nurses at the primary and secondary level of public sector health care: The case of Slovenia. *Open Access Macedonian Journal of Medical Sciences*, 6, 416–422.
- [37] Jose, T. T., & Bhat, S. M. (2013). A descriptive study on stress and coping of nurses working in selected hospitals of Udupi and Mangalore districts Karnataka, India. *IOSR Journal of Nursing and Health Science*, 3(1), 10–18.
- [38] Woo, T., Ho, R., Tang, A., & Tam, W. (2020). Global prevalence of burnout symptoms among nurses: A systematic review and meta-analysis. *Journal of Psychiatric Research*, 123, 9–20.
<https://doi.org/10.1016/j.jpsychires.2019.12.015>
- [39] Xianyu, Y., & Lambert, V. A. (2006). Investigation of the relationships among workplace stressors, ways of coping, and the mental health of Chinese head nurses. *Nursing & Health Sciences*, 8, 147–155.
<https://doi.org/10.1111/j.1442-2018.2006.00281.x>