

# Stress among Nursing Staff in Hospitals and its Relation with Job Satisfaction, Job Performance and Quality of Nursing Care: A Literature Review

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## Abstract

**Background:** Stress has been one of the most commonly spoken about topics when it comes to nursing practice especially in hospitals. Stress has been linked with poor performance and increased intention of staff to leave the hospitals

**Aim:** This review aims to 1) Critical review all papers related to stress among nursing staff and explore the relationship of job stress among nursing staff with job performance, job satisfaction, intention to leave and quality of nursing care, 2) Identify the strategies deployed by nurses and organizations to manage stress among nurses and mitigate its effect, 3) Identify research gaps related to strategies engaged by organizations and nurses to manage nurses' stress

**Methods:** Various databases were used for searching papers on stress like Google scholar, Ebscohost and Proquest. Key words included job stress, burnout, nursing staff and patient safety. The review included papers published from the year 2000 till 2019, conducted and published in any country as long as the language is English. Eligibility criteria were met by a total of 16 studies from the total of 35 papers which matched the search.

**Conclusion:** Many studies have reported that job stress is negatively correlated with job satisfaction, job satisfaction and quality of nursing care. Major contributors for job stress are identified as work load, shift works, long working hours and relationship with supervisors. Stress is reported to increase attrition, intention to leave and reduce retention and recruitment among nurses. Some studies have suggested that empowerment, support from supervisors and colleagues and playful problem solving tend to reduce job stress in nurses. One study reported that mindfulness meditation helped in reducing perceived stress and burnout among nurses. However, there is limited knowledge on how patient demands and expectations from the nursing professionals and as well as hospitals are contributing to job stress. Similarly, there are only few studies which have highlighted the strategies implemented by hospitals to reduce job stress among nursing staff and increase their job performance and this requires further research.

**Keywords:** Job stress; Burnout; Nursing staff; Nurses; Job performance; Patient safety; Job satisfaction

## Introduction

Stress is rated as among the top ten work related diseases by The National Institute for Occupational Safety and Health (NIOSH). Mayo Clinic defines Job burnout as “a special type of work-related stress - a state of physical or emotional exhaustion that also involves a sense of reduced accomplishment and loss of personal identity” [1]. All Hospital staffs such as Nurses and Physicians reported to be at greater risks of depression compared to people working in other professions due to stress. The environment in which the nurses' work in the hospitals is not only a complicated one but also involves them to carry out multiple tasks ensuring they meet the expectations of the patients as well the clinicians. In this intense and complicated work environment, nurses subject themselves to Job stress and burnout. The job stress among nursing staff has multiple effects starting with the impact on patient safety, job performance, nurses' health, patient satisfaction and productivity among others Christine and Healy [2].

This review aims to examine the results of different researchers on the correlation of job stress among nursing staff with job satisfaction, job performance, ill health and patient safety. Finally, I will summarize the gaps in knowledge in terms of strategies deployed by organizations and nurses in managing the stress among nursing staff and mitigating the effect of stress on health and other parameters and summarize the research gaps. The review aims to 1) Critical review all papers related to stress among nursing staff and explore the relationship of job stress among nursing staff with job performance, job satisfaction, intention to leave and quality of nursing care, 2) Identify the strategies deployed

by nurses and organizations to manage stress among nurses and mitigate its effect, 3) Identify research gaps related to strategies engaged by organizations and nurses to manage nurses' stress

## Literature Review

A systematic review of the different research papers was done for stress among nurses using various databases such as Ebscohost, Proquest and Google scholar. Key words included Job Stress, Burnout, Nurses and Patient Safety. The review included papers published from the year 1980 till 2019, conducted and published in any country and in English. Studies done with nurses in both outpatient clinics and hospitals and published in English were included. The search was based on theory instead of a systematic review. These papers were downloaded and each paper was thoroughly read and assessed in reference to these inclusion criteria: published in English language, it's a primary research done,

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stress and coping strategies were measured. This exercise resulted in a total of 47 studies which met the inclusion criteria out of the total 75 papers which matched the search. 28 papers were excluded from the final review as these included other healthcare professionals other than nursing and also outcomes other than stress were measured.

Job stress is defined by multiple authors in different ways. Job Stress is defined by Michie as “the psychological and physical state that results when an individual’s resources are not sufficient to cope with the demands and pressures of the situation” [3]. The National Institute for Occupational Safety and Health (NIOSH) defines Job stress as the emotional and physical responses of an individual experiences when the capabilities, resources and needs of the worker do not match with the Job that he or she does (NIOSH, www.cdc.gov). Job satisfaction is defined by many authors in many ways and sums up to the extent which employees like doing their jobs. Job stress has always been associated with almost all professions and is considered to be very common. Nurses are the largest workforce in a healthcare organization and are involved in providing direct care to the patients and experience a variety of stressors at work [4]. Nursing profession is considered to be the one associated with high stress and is characterized by high turnover, burnout and absenteeism [5,6]. The survey conducted by Northwestern National Life showed that about forty percent of workers in America perceived the jobs they are doing to be extremely stressful. To manage the stress of workers, there is a cost incurred which is also a huge cause of concern to any organization and the country. A survey done in 15 European countries reported that about 57% of the people undertaken the survey said perceived that work negatively affected their health, and 28% of the responses perceived that their health and safety was at risk due to work [7]. Moreover, the job stress has impact on various aspects such as patient safety, job performance, nurses’ well-being and productivity. Different results were reported by researchers on the effect of job stress on the job performance among nurses. Quality of nursing care provided by the nurses reduces with increased occupational stress [8]. However, there were some contradicting studies like low job performance is linked to high job stress [9-11], while high job performance is linked to high job stress [12]; (Also moderate job stress is linked to better performance that with people experiencing high and low levels job stress [13,14]. Job stress is also reported to be negatively correlated with job satisfaction [9]. Many studies have also emphasized on the reduction of job stress and enhancing positive work environment to improve job satisfaction. While there was no gender differences reported in terms of job stress experienced by different gender nursing staff. Some of the studies also reported positive relationship of job stress with incidences of burnout and emotional disturbances [15] and also with perception of mental distress [16,17]. A study reported that 50-80% of the diseases experienced by professionals are psychosomatic in or related to stress [18,19].

## Results and Discussion

A variety of tools were used to assess job stress among nursing staff namely Ways of Coping Questionnaire (WOCQ), Nursing Stress Scale (NSS). Many of these studies also used questionnaires to capture the perceptions of the nursing staff related to job stress, job satisfaction, job performance and patient safety.

The study done by Meysal et al. revealed that Long working hours, work load, working on holidays, lack of career advancement and lack of importance to nursing career for others contributed to job stress. High workload is found to be one of the major stressors associated with high job stress among nursing staff working in the outpatient clinics in Ghana [20]. Employees who work in higher status tend to experience more burnout than their counterparts working in the lower

status. In the Neonatal Intensive Care Unit (NICU), doctors and nurse practitioners experience more burnout compared to the nurses and respiratory therapists working in the NICU due to the job demands expected of their roles in these higher status jobs [21]. Nursing staff who work working overtime very frequently tend to have difficulty in being awake during the work and are at three times higher risk of committing an error compared to those who do not work overtime [22]. 43% of the 1000 registered nurses working in the inpatient care units experienced emotional exhaustion of high degree in a study conducted in 1999. Nurses with a nurse to patient ration of 1:8 i.e., one nurse for 8 patients tend to experience emotional exhaustion 2.29 times compared to the nurses who have a less nurse to patient ratio of 1:4 [23]. The incidence of most work related burnout among medical professionals is reported to be in the order of nursing professionals (66%), followed by physician assistants (61.8%), doctors (38.6%), administrative staff (36.1%) and medical technicians. One of the studies done in the operating room environment reported that surgeons are more stressed compared to the anesthesiologists followed by the scrub nurses. The aspects found to be causing stress in surgeons was acoustic distractions with surgeons where they are engaging with phone calls and among anesthetists the aspect was high workload [24].

It was also documented that “lack of coordination between different hospital units” was considered as the lowest effective factor on job stress. Job stress among nurses has been associated with various health problems such as cardiovascular diseases, hypertension, obesity, depression and all these cause mortality. Mortality risk is high in females nursing staff compared to all other types of workers [25].

Good working relations with colleagues at work are reported to enhance performance of the staff. The study done by Raeda in Jordan, has noted that those nurse who received good social support from their co-workers experience low job stress. It was also reported that those who experienced low job stress performed well i.e., showed high job performance. Nurses with high job recognition experienced low stress and those [26]. However, she reported that the high job stress does not necessary mean low job performance and needs to be further studied upon [27]. The study conducted by Jennifer R. Bradley and Sue Cartwright, reported that the presence of stressors had adversely affected the health of the nurses and low job performance was related to high levels of stress. The study also reported that health of the nurses with high levels of perceived support from staff and job satisfaction is positively impacted with high level of perceived support from organization [28].

The meta-analysis done by George and Karen, reported a strong negative correlation with job stress and job satisfaction and job satisfaction has strong positive correlation with nurse & physician collaboration. This study also reported that autonomy and nurse-physician collaboration with reduced job stress results in high job satisfaction among nurses. This result was similar to the findings reported by another meta-analysis done by Blegen [29]. The study done in Ireland showed that nurses experienced high stress related to confidence, home-work conflict and organizational involvement. It also reported that the older nurses have experienced more stress compared to the younger nursing staff. Few of the reasons for this could be that older nurses might experience more family commitments, expectations from family members, domestic commitments like looking after the house and trying to fulfill multiple roles in the family (mother, daughter, wife, carer and worker) and thus might experience higher levels of stress.

Maternity nurses were reported to be more satisfied with the

work compared to other general nursing staff. Whereas surgical ward nurses are the least satisfied of the lot with their work. This could also be possibly due to the mindset of the nursing staff and patients that delivering a baby is an auspicious and good thing and not related to sickness, thus the patient is not impatient and willing to wait and listen to the nursing staff. After each delivery of a baby both the nursing staff and the parents experience joy which possibly explains the reason why maternity nurses experience less stress. While in contrast the surgical nurses experience a lot of work load and patient expectations.

The study done by Christine and Healy (2000) in Australia, examined the coping strategies of nurses related to job stress and their impact on job satisfaction. The study was done using different questionnaires such as Nursing Stress Scale (NSS), Job Satisfaction Scale of the Nurse Stress Index, Ways of Coping Questionnaire, shortened version of the Profile of Mood States and the Coping Humor Scale. This study showed a similar result as with the earlier studies in regards to the job performance and job stress – showed a strong negative correlation while it showed a positive correlation with nursing job stress and mood disturbances among nurses. It had also reported no significant relationship of implementing coping strategies such as humor on moderating the effect of stress among nurses. The highest perceived stressor among nurses was identified to be workload using the NSS [2]. This study also reported that “Planful problem solving” as one of the most frequently strategies by the nurses which was also matching with the results of O’Brien & De Longis’s [30].

The study done in Taiwan examined the impact of shift work on job stress, sleeps quality and perceived health status of nursing staff. This study was done using questionnaires and reported that shift work had no correlation with the stress among nursing staff and moderate stress was experienced by nurses irrespective of the shift they worked in. And, job stress was negatively correlated with sleep quality and perceived health status [31]. The study done in Canada also reported a direct relationship of job stress with overall burnout and negatively correlated with Job satisfaction [32].

When nursing staff are not involved in decision making process related to patient care, this tends to increase stress among nursing staff and acts as a job stressor [33]. When nurses do not take decisions using because when they do, they are found to be wrong, they experience stress [34]. Structural empowerment refers to the availability of structures such as policies, procedures and resources which will help nursing staff to operate in an autonomous manner and achieve excellence in their work. There is positive correlation between structural empowerment and job satisfaction among nursing staff. Nurses reported low job satisfaction especially to opportunities to learn and grow and the amount of support they received in the organizations in Italy. This study also reported that the more empowerment the nurses receive, the less work stress they experience [35].

In the study in acute care health settings, it was pointed out that the patient settings which provide care for 24 hours, their staff experiences are neglected and did not receive great attention when it came to studying job stress in nursing staff. This study identified that the main stressor among qualified nursing staff was “lack of resourced” and that among the non-qualified nursing staff or nursing assistants is client related difficulties. Qualified nursing staff experienced more work load than that of unqualified nursing staff i.e., nursing assistants. Exhaustion was positively correlated with stressors, higher the stressors, higher the emotional exhaustion [36].

In Iceland, one of the study reported strenuous working conditions were experienced more by nursing working in hospital settings

compared to those working outside hospital settings. These included more working hours, more direct care to patients, fewer opportunities to take timely lunch breaks due to staff shortages. The same study suggested that lack of opportunities to do professional nursing practice, less work experience, unscheduled work and dissatisfaction with head nurses were the major stressors leading to stress at work [37]. The findings of this study are similar to those reported in other studies conducted on nurses in other countries as well [23].

Higher job autonomy and good co-worker’s support is associated with low burnout among staff working in the NICU [21]. Yoga has shown to be effective in reducing stress levels among nurses and medical staff working in healthcare system. A study conducted in Ghana among nurses working in outpatient clinics did not see any significant relationship between supports from co-workers in reduction of stress among nurses; the co-worker support did not reduce stress [20]. Owing to the workload, expectations from the nursing staff and job stress, there is shortage of nursing staff across the globe. This means that there are no staffs available to provide the care which is intended to the patients by the doctors and other professionals leading to additional burden on the existing nurses who in turn could impact retention of nurses and also future recruitment. Empowerment can play a significant role in reducing job stress and improving job satisfaction among nurses and may also helping in attracting nursing staff and retaining them [38-40]. Conger and Kanungo argue that empowerment gives power & authority to nurses especially subordinates to practice in a certain fashion and hence might be relevant to reduce work stress [41]. The study done by Timothy and Theresa, reported that social support from nurse supervisors and colleagues reduce job stress and increases job satisfaction. Similar finding was reported related to empowerment, which reduced job stress and increased job satisfaction [42].

In the above paragraphs the negative effects of stress are clearly reported by many researches. Mindfulness is reported to be one of the inexpensive methods used among nursing staff to reduce stress, improve quality of life, personal fulfillment and improve job satisfaction. In one of longitudinal study in Brazil with 13 nursing staff, it was reported that a stress reduction program involving Mindfulness Meditation has resulted in a significant reduction in the perceived scores related to stress, burnout, depression, and anxiety and significant increase in quality of life [43].

### **Aim 1: Relationship of job stress among nursing staff with job performance, job satisfaction, intention to leave and quality of nursing care**

Most of the papers established that job stress among nursing staff is high and it negatively affects the job performance and quality of nursing care provided by them. It is also reported that stress among nurses working in hospitals is comparatively higher than the nurses working in ambulatory clinics or day care surgery center. Job stress also leads to decreased or diminished job satisfaction and might also prompt nurses to leave the job and look for less stressed roles or jobs in clinics. Job stress has been shown to increase attrition and decrease retention among nursing staff

### **Aim 2: Identify the strategies deployed by nurses and organizations to manage stress among nurses and mitigate its effect**

Social support from Co-workers has reported to been an effective stress coping strategy i.e., nurses who have had good social support from co-workers experienced less stress compared to others. “Planful problem solving” where the efforts are directed to the solving problems

seemed to have been effective in coping stress among nurses. Humor as a stress coping strategy reported to be not effective in reducing stress.

### **Aim 3: Identify research gaps related to strategies engaged by organizations and nurses to manage nurses' stress**

There is little literature available on the stress coping strategies being deployed by the hospital managements and the nurses and it needs further studies especially in private sector hospitals. While the impact of job stress in nurses on job performance, retention, recruitment has been widely studied, there is limited research on whether patient demands and expectations impact job stress in nurses and hence requires more research to establish a relationship between nurses' job stress and patient demands and expectations.

Our study has several limitations, most of the studies reviewed are cross sectional in nature and it is very difficult to pinpoint the causal relationships. The fact that majority of the studies are done at individual facilities and in different countries with different working conditions and work environments, generalizing the findings will be difficult.

### **Conclusion**

Many studies have reported that job stress is negatively correlated with job satisfaction, job satisfaction and quality of nursing care. Major contributors for job stress are identified as work load, shift works and relationship with supervisors. Stress also reported to increase attrition, intention to leave and reduce retention and recruitment among nurses. Some studies have suggested that empowerment, support from supervisors and colleagues and planful problem solving tend to reduce job stress in nurses. One study reported that mindfulness meditation helped in reducing perceived stress and burnout among nurses. However, there is limited knowledge on how patient demands and expectations from the nursing professionals and as well as hospitals are contributing to job stress. Similarly, there are only few studies which have highlighted the strategies implemented by hospitals to reduce job stress among nursing staff and increase their job performance and this requires further research.

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