CAUSES AND EFFECTS OF OCCUPATIONAL STRESS IN NURSING

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Abstract—Nursing is an extremely stressful job, and high levels of occupational stress are believed to have negative effects on nurses and organizations. Occupational stress among nurses is the consequence of exposure to a combination of working and personal factors. This study involves semi-structured interviews with a sample of (N = 15) medical-surgical ward nurses from three Ministry of Health hospitals in Riyadh city, Saudi Arabia. This qualitative analyses recognized a high level of occupational stress among nurses. Work overload, emotional demands and work-home conflict are the major sources of stress. The majority of nurses stated that occupational stress had a significant negative impact on their mental health and increased their intention to leave their job. The current qualitative study aimed to identify the main sources and effect of occupational stress among medical and surgical ward nurses in Saudi Arabian public hospitals. Better understanding of job stress among nurses in Saudi may lead to assist the health care strategy makers in creating a plan to decrease the work-related stress level of nurses.

Index Terms- nurse, occupational stress, qualitative study, Saudi Arabia.

I. INTRODUCTION

According to a recent review of the literature, the present nursing shortage and high turnover rate amongst nurses is of great concern in many countries [1]. In 2009 there was one nurse for every 364 persons in Saudi Arabia, from a huge total population of 77,946, of whom 51.9% were Saudi nationals [2]. The nursing shortage phenomenon has proven to be closely related to working conditions and job stress. Nurses cannot avoid the increase in workplace stressors that affect their well-being and also the welfare of the organization [1]. The cost of these stress consequences has become a huge burden on organizations; for instance, work stress costs employers over £25.9 billion in the UK annually [3]. Nurses are at particularly risk from stress-related problems, with high rates of turnover, absenteeism, and burnout [4], [5]. Nurse stress is defined as the emotional and physical responses resulting from the interactions between the nurse and her/his job environment where the demands of the work exceed abilities and resources [6]. And Saudi Arabia, like many areas of the world, is suffering a nursing shortage. A major cause of such shortage is the workplace stressors due to nursing being a highly skilled profession. Moreover, no consensus regarding the causes of stress has been agreed upon to date. Despite the various studies on work-related stress, the absence of empirical research on sources of stress, especially in the Saudi health sector, makes the present study imperative. Furthermore, it may be significant to examine the sources of stress more deeply, as these sources have been proven to be responsible for negative consequences that affect individuals and organizations equally, such as work dissatisfaction, poor performance, absenteeism, employee withdrawal, job turnover, and lower job involvement [7]. While it may not be possible to eliminate stress, it could be minimized [8].

II. LITERATURE REVIEW

The growing awareness of the implications of work stress for nurses is evident by the sheer number of studies investigating occupational stress in nursing. Occupational stress is a recognized problem in healthcare workers [1], [9]. Nursing has been identified as an occupation that has high levels of stress [2], [10]. In recent years, nursing studies have found that the causes and consequences of occupational stress phenomenon are the result of an imbalance between the individual and the work environment. The sources of stress experienced by nurses may differ from country to country and from each individual or group of nurses, depending on the specific complex interaction between their personality, values, skills, and circumstances [11], [12]. In addition, such differences may be attributed to variations in factors such as cultural values, education and training, healthcare policy, geopolitics, national economic prosperity, nurse-to-patient ratios, and the availability of other healthcare professionals [11]. However, numerous of previous studies were agreed with some cause and effects of job stress.

The main sources of occupational stress

A stressor defined as any “demand made by the inside
or outside atmosphere that disappointments a person’s stability and for which restoration is needed” [13]. Additionally, job stressors can relate to workplace characteristics that present a risk to individuals [14]. Such characteristics may affect organizational performance by falling productivity and competence that in turn harm the organization [15, [16]. Research conducted by [17] about the challenges facing the nursing profession in Saudi Arabia claimed that many challenges can cause stress, including poor working conditions, such as gender mixing, work-family conflict, long working hours, high turnover rate, lower patient satisfaction, and rotating shifts. With the recent shortage in nursing, hospital nurses are usually working longer hours with an extra patient load. Increased workload, low pay, and inadequate financial rewards, absence of recognition and appreciation, and violence or lack of cooperation from patients and/or their families all seem to have generated frustration, disappointment, a high level of stress, and regret which in turn have adversely influenced nurses’ work satisfaction and hence their retention [18], [19], [20].

In some hospitals, there was a consensus among staff nurses that hospital administration does not even listen to their concerns [21]. A study by [22] aimed to assess the association between occupational stress and coping strategies of Hong Kong nurses working in surgical units. The findings presented the most common workplace stressors for nurses to be “workload”, “lack of support” and “inadequate preparation” [11]. Concluded that nurses in the UK listed “lack of staff” as the main source of workplace stress, whereas [23] listed “high job demands” and “low flexibility in working hours” as the main sources among Norwegian nurses. However, work overload is accepted by numerous researchers to be the primary cause of occupational stress. See the figure below for a list of the top 10 stressors listed in various countries [11].

![Figure 1](image_url)

**Figure 1 Top 10 stressors (highest percentage in each country)**

### Consequences of occupational stress

Numerous studies have revealed that occupational stress can have numerous undesirable consequences for both the individual and the workplace [24], [25]. The stressors can be different for each individual in different circumstances [26]. Jex and Beehr’s theory include three types of individual consequences: psychological, physical, and behavioural [11]. Physiological can include elevated cortisol level, increased heart rate, blood pressure, cardiovascular symptoms, and back pain; psychological can include depression, anxiety, and burnout; and behavioural can include workplace violence and reduce morality [27]. Healthcare sector stress produces various negative, costly, and serious consequences that affect both individuals and organizations [28]. Thus, the consequences of occupational stress can be grouped into those at an individual level and those at an organizational level [29]. Many people are not aware of occupational stress that occurs in organizations, and they assume that job-related stress will only affect their performance at work. However, it can also affect their health and lead to serious health issues, even death. If individuals are not aware of job stress, it can become worse and may lead to suicide [30].

### Personal level

Literature has identified an extensive relationship between stress and poor health outcomes among medical professionals; for example, extraordinary stress may be responsible for heart disease, headaches, asthma, peptic ulcers, lower back pain, and numerous other physical health issues [31]. Occupational stress can also have an adverse effect on nurses’ mental health, such as anxiety and depression [31], [32]. For example, [33] claimed that nurses, who have higher levels of workloads and responsibilities with limited nursing staff, can suffer a variety of negative impacts, to include higher levels of depression. In contrast, research has found that individuals are more likely to reduce to occupational stress rather than stress in other life domains [34]. This could be due to the fact that other life domains are dependent on work (e.g., financial dependence – payment of bills, mortgages, etc.) and on average a significant amount of peoples’
lives are spent working.

**Organizational level**
In terms of the negative effects of occupational stress on organizations, they may differ from one to another – for instance, reduced efficiency, poorer work performance, reduced enthusiasm, less interest in work, increased rigidity of thinking, lack of care for the organization and staff, and a lack of responsibility [35]. Occupational stress contributes to low motivation and morale, decreased performance, high turnover rate, sick leave, accidents, job dissatisfaction, low-quality service, poor communication within the organization, and conflicts [36]. Many studies suggest that employee workplace stress is inversely proportional to job satisfaction [37]. In addition, some studies found a link between workers’ occupational stress and intentions to leave their workplaces [39], [40]. Occupational stress, if not managed properly, may lead to increased absentee rates, internal conflicts and low employee morale [41]. Occupational stress often translates into high dissatisfaction among the employees, reduced job mobility, burnout, poor work performance, and less effective interpersonal relations at work [42]. Therefore, a high number of working days lost to self-reported occupational stress, depression or anxiety, adding to the mounting monetary costs for businesses and organizations as a result of lost productivity caused by sickness absence, early retirement, increased staff turnover, and absenteeism [43].

After examining the research on the common sources and effects of nurses’ stress, the differences between the findings for the main causes and effects of nurses’ stress and the similarities between causes of stress identified in earlier studies make it difficult to draw any firm conclusions regarding cause and effect. As a result, it is important to identify the specific common sources and impacts of occupational stress among Saudi public hospitals’ nurses.

**III. RESEARCH METHOD**

**Research approach**
I used a qualitative research design and an exploratory approach to explore and describe employees’ experiences of the main causes and effect of occupational stress, by applying the methodology of the post-positivism paradigm. In this research, a qualitative exploratory approach was especially beneficial because it allowed employees to describe what was significant to them about causes and effects of occupational stress in their own words rather than limiting them to predetermined categories. This method also allows researchers to understand and present personal points of view that participants often conceal [44]. An interpretative phenomenological approach aims to gain a better understanding of the nature and quality of the phenomena (in this study, occupational stresses) as they occur [45].

**Research strategy**
The research strategy used in this study was to analyse the nurses’ experience of occupational stress in the hospitals through interviews where the nurse was the unit of analysis. I interviewed 15 nurses to gain more insight into, and detailed information about, causes and effects of occupational stress.

**Participants**
15 medical-surgical ward nurses with more than 1 year of experience participated in the study: 3 men and 12 women. The nurses were recruited from different wards at 3 different public hospitals.

**Ethical considerations**
Following approval by the Brunel University Ethics Committee for Research and approved by the hospitals’ protocol, all of the participants received oral and written data about the purpose and design of the study. Assurance was given of their right at any time to stop their participation, and that data would be treated as confidential and used only for the declared purpose.

**Data collection**
Data collection was through semi-structured interviews, which allowed the researcher to gather data and study the phenomenon from the standpoint of the interviewees and allowed further exploration as and when issues arose [46]. Semi-structured were interviews carried out in participants’ workplaces and each interview lasted approximately 25 to 35 mins because of their busy schedules. I developed and evaluated the interview questions before the interviews. I asked the participants three main questions after the preamble:

**Being a nurse is very stressful**
1. To what extent do you feel stress in your job?
2. What are the main causes of the stress?
3. What are the main effects of the stress?

**Data analysis**
Recorders were listened to and transcripts were read line by line; each word and sentence was analysed to identify tentative themes that were compared with each other within and across transcripts; similar themes were placed together and categories were expressed from the themes for the purpose of abstraction.

**IV. FINDINGS AND DISCUSSION**
I identified three main themes from the data. The first them relates to a level of stress among nurses. A clear agreed high level of stress emerged from the responses.
I consequently labelled this theme ‘The Prevalence of Stress in Nursing’. The second theme relates to the causes of nurses’ stress which I called ‘Unearthing Common Stressors’. The third theme is related to job stress outcomes which are titled ‘The Effects of Occupational Stresses’. I describe these three themes in more detail below and provide related definitions and examples by way of illustration.

Theme 1: The Prevalence of Stress in Nursing
It was clear from the responses that working as a nurse in Saudi’s public hospitals is extremely stressful. Table 1 below shows the responses as a function of gender.

Table 1: Extent of stress

The majority of the sample, irrespective of gender, expressed high levels of stress. This finding is consistent with the previous study of Xianyu and Lambert [10] that reported nursing has been recognized as a profession that has high levels of stress. Interviewees attribute this stress to a number of factors. Firstly, some participants explained that work as a nurse is acceptable but the job roles in the hospital were difficult;

“I would say I was happy to be a nurse before my work. The nurse job itself is very rewarding and emotional work, but the stressors that I face make me feel much stressed.”
  (Female nurse 1)

“Now it’s the end of my shift, I am fully exhausted. I had made plans after finishing duty today; however, I think I will go home and sleep.”
  (Female nurse 2)

The participants expressed stress from a number of sources. As described in the Methodology section, the interview questions asked participants about common workplace stressors. The research also posed a number of qualitative questions linked to experiences of stress specific to nurses in Saudi public hospitals.

Theme 2: Unearthing Common Stressors
This theme had three subthemes: workload, work-home conflict, and emotional demands. The interview findings relating to the main sources of stress among nurses are discussed.

Workload
The interviews findings found work overload at a qualitative level, and the majority of the interviewees held the view that workload was the main stressor in the hospital. This finding is consistent with the study by Wang, Kong and Chair [20] in Hong Kong of nurses working in surgical units, the results of which showed “workload” to be one of the most common occupational stressors for nurses. The following quotations of this study’s participants approved this source of stress.

“Work overload is the number one stressor. With more paperwork than patients, I think our work becomes office work rather than work with patients. Before I used to finish my work at the end of my shift, but recently sometimes I stay two hours more after my shift has finished to complete my tasks.”
  (Male nurse 5)

Previous studies [22] and [23] identified the relationship between workload and mental ill heath, such as anxiety, and argue that there is a strong relationship between the two concepts. This was confirmed by the majority of nurses in this study, as illustrated by the following comments:

“I’m doing more than one person’s work and it’s hard to get everything done, as there is so much to do and this job makes me anxious. Sometimes even in my break time I have to work because I have to submit everything before going home, otherwise I have to stay till I finish.”
  (Female nurse 3)

Work-home conflict
Whenever a nurse works late or feels under pressure, he/she loses this time from his/her family. Most respondents claimed that conflict between work and home is stressful for them, especially married respondents. They believe that these conflicts were the reason for higher rates of negative outcomes – for instance, absenteeism, emotional exhaustion, higher turnover, lower feelings of happiness, lower family satisfaction, exhaustion, and anxiety. These results are consistent with previous studies (see [17], [24], [25]). This is also confirmed by nurses in this study:

“I’m facing a clash between work demand and family life, especially when I have a lot of work to do or when something happens that is not in our routine. For example, some work we have to finish, so we have to extend time … even if there is something in the family, such as sick children or a social event.”
  (Female nurse 6)

Another nurse reported memory loss due to combined stressful factors such as work demands and home demands:
“My working hours are really long and stressful. When I go home I am completely exhausted; all I want to do is sleep, and I am not in a good mood to even chat with my family. Balancing between my work and my responsibility towards my family is very stressful.”

(Male nurse 2)

Overall, the vast number of participants agreed the work-home conflict to be a common job stressor that led to negative outcomes.

**Emotional demands**

The role of nurses is to assist patients in meeting their healthcare needs and to help the patient to adapt their situation and work through feelings and concerns. The current literature reports that patient violence is a major public health concern that has received growing attention [19], [20]. Interviewees stated that some patients are too dependent on the nursing staff and are not willing to take responsibility for their own improvement in health; other patients are difficult to manage because they are abusive or violent. Nurses also work closely with patients’ relatives, informing them about the patient’s illness and discussing with them the patient’s treatment plan. It would appear that interacting with relatives is equally as difficult and demanding as working with patients. (N/12) of the participants stated that stress stems from the emotional demands of patients and their families. Some participants expressed great difficulty in communicating with patients in some situations:

“Working as a nurse is an emotionally demanding job; for example, when I have to deal with a patient who doesn’t want to adapt to his/her situation and tries to shout and scream. The stress created by a violent, volatile patient demanding medicines sometimes makes me feel powerless, stressed and emotionally exhausted. However, we have to be patient and deal with this kind of situation.”

(Female nurse 4)

Some families are difficult to manage because they refuse to follow the nurses’ advice, instructions, or hospital rules or they are demanding. This was supported by the most of the interviewees. For example:

“Some relatives have unrealistic expectations about the patient’s extent of recovery or speed of recovery. If the patient doesn’t improve as fast as they thought, they often blame us for being incompetent and not doing enough. We have to constantly explain the patient’s condition to them, but they don’t seem to listen or don’t want to listen. They don’t comprehend that we are here to assist.”

(Female nurse 7)

Based on the majority’s opinions, it can be concluded that patients and their families increased the stresses on the daily routine care, and uncooperative family members or patients were a source of stress. Emotional demands in general are considered as stressors among nurses that caused negative impact.

Theme 3: The Effects of Occupational Stress

The interview sought to assess whether the stressors faced by nurses affected their health, personality, and work. It has been reported that occupational stress leads to a number of negative outcomes [25]. The interview findings emphasized the impacts of job stressors on both the nurses’ well-being and the organization. While the majority of the sample, irrespective of gender, were agreed that work stressors affect them mentally, a large proportion of them (n=10) were seriously considering leaving the job. I grouped the impacts into the following subthemes: mental health (anxiety) and intention to leave.

**Anxiety**

In terms of anxiety, a number of interviewees (n=11) specified that the sources of stress they suffered had a direct impact on their feeling of anxiety, which accord reference [33] that seemed to be significant correlate of anxiety and stress symptoms. Below some interviewees’ comments supported previous study:

“I often only have time to do the most urgent [tasks], as in patient care. But I don’t have enough time for other tasks, so I have to finish them at the end of the day. This makes me suffer from anxiety.”

(Male nurse 1)

One participant talked about being not able to stop thinking about work after finishing her shift. She reported it was difficult to ‘switch off’ after the pressure of work when at home or outside work:

“When I go back home after a stressful day I think about whether I did all my tasks today and whether I gave the patients their medication, and sometimes I am anxious that maybe I forgot to do something.”

(Female nurse 2)

The above is consistent with [34] finding that claimed nurses who have assumed higher levels of workload and tasks with limited number of nursing staffs, become vulnerable to negative outcomes including higher levels of depression and anxiety. However, based on the majority of opinions, it can be concluded that many of the consequences of stress at work described by participants related to anxiety and symptoms of worry.

**Turnover intention**

Intention to quit the job was a stress outcome specified by a number of participants who claimed stress had consequences linked to their job (n =10). Such
participants explained that the conditions within their job encouraged them to actively seek other employment or go back to their country of origin because of many reasons – for example, work over load. This problem is highlighted in the following quotations:

“I am very stressed because of work overload … of course if I get a better opportunity, I will leave.”

(Female nurse 4)

Another female nurse revealed:

“Now I am single and I don’t have children so I still can manage it, but if I get married I may have to think about it because I know that it will be difficult because of the large amount of work.”

(Female nurse 2)

Based on their comments, it can be concluded that a number of respondents are seriously considering leaving their job as a result of stress faced such as work overload and work-home conflict [40], [41].

CONCLUSION

This research clarifies that nurses in Saudi’s public hospitals have suffered high levels of stress and presents the main causes and effects of the stress to which hospital management need to give more attention. The effective way to reduce the level of stress depends largely on human resources’ ability to address it and deal with it correctly. Quantitative study is recommended to confirm and generalize the results of this study on all nurses in public hospitals in Saudi Arabia.

REFERENCES

Causes And Effects Of Occupational Stress In Nursing


