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## Prevalence of Stress Factors in Nurses in Leady Reading Hospital (LRH), Khyber Teaching Hospital (KTH) and Hayatabad Medical Complex (HMC) Hospitals, Peshawar, KPK

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### **Abstract:**

*Background: Nursing is a profession of high stress which effect physical as well as mental health of the nurses. There are a lot of reasons due to which stress is caused among nurses.*

*Objective: To identify the prevalence of stress factors in nurses in LRH, KTH and HMC Peshawar KPK.*

*Introduction: The major factors of stress in nurses are facing death and dying, conflicts with physicians, inadequate preparation to meet emotional needs of patients and their families, lack of support, conflicts with other nurses and supervisors, labour standards and uncertainty concerning treatment.*

*Method: This study was a descriptive cross sectional study where the prevalence and factors of stress in nurses was identified through a self-administered questionnaire.*

*Findings: 152 questionnaires were distributed among nurses, 52(34.21%) from LRH, 50(32.89%) from KTH and 50(32.89%) were from HMC. Mostly age of the sample was 25-30 years. Distribution of these nurses, according to their nursing status shows that 138(91%) were charge nurses, and 14(09%) were head nurses. Moreover, among the nurses 77(51%) were single, 72(47%) married, 1(0.1%) divorced and (0.1%) were widows.*

*Conclusion: In current study, majority of participants that (81%) were agreed that nurses feel stress during their job, while remaining (19%) was not feeling stress during their job.*

### **1. Introduction**

Stress can be defined as the internal response to external events. Gibbons, C. (2012). In other words stress is what the body and mind experience as what we adopt to a continually changing environment. The challenge of work becomes more complex and due to this the meeting ability of the individual is disturbed. Work Place stress has long been recognized as a challenge for the nursing profession. Nursing is a profession of high stress which affect physical as well as mental health of the nurses. There are a lot of reasons due to which stress is caused in nurses. On the other hand work related stress can be positive because it can help to prepare the nurses for life challenges, but if pressure and demand exceed then it leads to work related stress.

A stressor is anything that causes the release of stress hormones. There are two broad categories of stressors: Physiological (or physical) stressors and Psychological Stressors. There are numerous factors that may play the role of stressors in nursing profession. According to the National Institutes of Occupational Safety and Health, studies have generally linked eleven factors with stress for nurses.

1. Work overload for example too much to do, not enough time.
2. Time pressure, for example, hurry that was due yesterday.
3. Lack of social support, particularly from higher-ups, supervisors or managers.
4. Exposure to infectious diseases.
5. Needle sticks injuries.
6. Exposure to work-related violence or threats.
7. Sleep deprivation, especially for shift workers.
8. Role ambiguity and conflict.

9. Understaffing, shortage of trained and/or experienced nurses.
10. Lack of career development options, for instance limited opportunities for promotion.
11. Dealing with difficult or terminally ill patients, although it is a part of nursing, but still stressful.

### *1.1. Background*

Stress has been considered as an antecedent or stimulus, as a consequence or response, and as an interaction. Stress has been studied from different perspectives. It may cause detrimental effects on nursing role play. By turning toxic work environments into healthy workplaces, researchers and nurse leaders believe that improvements can be realized in recruitment and retention of nurses, job satisfaction for all health care staff, and patient outcomes—particularly those related patient safety (McCauley & Irwin, 2006) P.8. However stress is not inherently harmful. According to Lazarus & Folkman (1984) each individual's cognitive appraisal, their perceptions and interpretations, give meaning to events and determines whether events are viewed as threatening or positive. Personality traits also influence the stress equation because what may be overtaxing to one person may be exhilarating to another French JRP, Chaplin RD. (1972). PP.30-60. According to Kahn, Wolfe, Quinn, et al. (1964) nevertheless; stress has been regarded as an occupational hazard since the mid-1950s. In fact, occupational stress has been cited as a significant health problem (Caplan, Cobb, French, et al. 1980). Work stress in nursing was first assessed in 1960 when Menzies identified four sources of anxiety among nurses: patient care, decision-making, taking responsibility, and change. Researchers have investigated others Personal Characteristics and Work Relationships stressors than mentioned in introduction. Some of these are Gender and Family Obligations, Management Styles (Bhatia, & Kishore. J, 2010).

### *1.2. Significance of the Problem*

Patients and their families rely on health care workers especially nurses. So it is important for nurses to take care of themselves in order to take care of others, their patients, family, and friends. Stress can upset nurse's best efforts. It impairs nurse's ability to function on the job, and to enjoy life outside of work. The prevalence of mild, moderate, severe and very severe degrees of anxiety and depression was (55.6%), (39.3%), (4.6%) and (0.6%) respectively, according to Khan. S. A, Farooq. S, Bano. A (2012). The study was carried out in Peshawar.

Various studies exist relevant to stress in nurses internationally, but we are deficient related to research about these issues in Pakistan. After a very boring search, only one study was found. It is very important to the prevalence of stress in nurses so that further studies are carried out and management tools are developed for stress.

### *1.3. Problem Identification*

Stress has been identified in nurses most commonly in clinical areas. Health Care System is facing multiple problems due to stress issues in nurses. Delivery of care can be enhanced if stress related issues were found and work was done for its management.

### *1.4. Purpose*

The purpose of this study was to know the prevalence of stress factors in nurses in clinical settings (Hospitals).

### *1.5. Research Question*

- What is the prevalence of stress factors in nurses in KTH, LRH and HMC in Peshawar KPK Pakistan?

### *1.6. Objectives*

- To identify the prevalence of stress factors in nurses in clinical areas or hospitals.

## **2. Literature Review**

Nursing is a rewarding and satisfying profession but stress may be detrimental to health of nurses and to the patients as well. According to Bhatia (2010) a study conducted in New Delhi India, 87.4% of nurses from the sample reported occupational stress. The prevalence of occupational stress amongst nurses was 87.4%. 'Time Pressure' was found to be the most stressful whereas 'Discrimination' was the least stressful of the given possible sources of stress in everyday life. Other highly stressful sources were: handling various issues of life simultaneously with occupation, such as caring for own children/parents, own work situation and personal responsibilities. Olayinka A. et al. (2013) a study conducted in Nigeria major causes of stress identified by the nurses, were poor salary (82%), handling a large number of patients alone, lack of incentives (83%) and job insecurity among others. The major types of stress experienced were, headache (49%) as physical stress; anger as emotional stress; lack of concentration and forgetfulness were the most psychological stress experienced in the ward.

In another study conducted in Maharashtra, India (Mohite, Shinde & Gulavani, 2012), majority 49% of nurses had reported frequent occurrence of stress, due to uncertainty of concerning treatment. Whereas maximum 48% of nurses had reported frequent occurrence of stress, due to dealing with patient and. Majority 59% due to workload as cause of stress. Inadequate emotional preparation is reported by 68%, 24% and 8% of nurses as occasional, frequent and extremely occurring cause of stress respectively. Maximum 49% reported frequent occurrence, due to conflict with the doctors. 52% nurses reported frequent occurrence of stress, because of supervisors as a cause of stress. Maximum 50% nurses reported extreme occurrence of stress due to death and dying as a cause of stress. 53%, nurses reported occasional, frequent and extreme occurrence of stress due to conflict with peers as a cause of stress

respectively. 48% nurses reported occasional, frequent and extreme occurrence of stress due to discrimination as a cause of stress respectively. According to Lexshimi, Saadiyah, Santhna, Nizam (2007) 100% of the nurses said that they had experienced physical stress, psychological stress and changes in behavior. After an extensive search one study was found to be conducted in Peshawar, Pakistan about stress in nurses. According the prevalence of anxiety and depression was 100% with mean score of  $41 \pm 10.70$  and job stress  $38.96 \pm 18.76$ . The prevalence of mild, moderate, severe and very severe degrees of anxiety and depression was 55.6%, 39.3%, 4.6% and 0.6% respectively. According to Milutinović (2012) out of the total number of investigated nurses, 84 (8.4 %) reported hypertension, 75 (7.5 %) peptic or duodenal ulcer disease, 52 (5.2 %) gallbladder inflammation or gallstones, 30 (3.0 %) chronic bronchitis / asthma, and 17 (1.7 %) diabetes.

### 3. Research Methodology

This study was a descriptive cross sectional study where the prevalence and factors of stress among nurses was identified through a self-administered questionnaire. Descriptive study is one in which information is collected without changing the environment. No manipulation is carried out. This descriptive study enabled us to identify the prevalence of stress and the association between factors of stress among the nurses of tertiary hospitals of Peshawar KPK Pakistan. Descriptive studies are usually the best methods for collecting information that will demonstrate relationships and describe the environment as it exists.

#### 3.1. Study Population

The population of this study was the clinical nurses of KTH, LRH and HMC Peshawar. There are 276, 565, and 290 nursing staff respectively. Total population size was 1131 clinical nurses.

#### 3.2. Study Setting

The setting of this study is clinical area. The study will be carried out in three tertiary care teaching hospitals i.e. Lady Reading (LRH), Khyber Teaching Hospital (KTH) and Hayatabad Medical Complex (HMC) Peshawar. These hospitals have 1700, 1500 and 750 beds respectively. All the three hospitals are providing tertiary care to the patients from all over the Khyber Pukhtunkhwa province as well as the tribal belt and the adjacent areas of Afghanistan and are recognized for undergraduate and postgraduate training. Our study will be cross sectional, descriptive

#### 3.3. Sampling

We utilized two stages probability sampling. In which in the first step we made a cluster of hospitals and in a second step we do randomization of staff nurses. This technique eliminates biasness. Data were collected from 25-30, December 2014.

#### 3.4. Sample Size

The sample sizes for this study were calculated according to our study design and sampling methods we were using, as in a descriptive cross sectional study done. We took 10% of our population and 5% for choosing sample random sampling. Total we took 15% of our population. So our population size is 150 clinical nurses.

$$\text{LHR} = 150 \times 565 / 1131 = 75$$

$$\text{KTH} = 150 \times 276 / 1131 = 37$$

$$\text{HMC} = 150 \times 290 / 1131 = 39$$

#### 3.5. Recruitment of Participants

We went to the allocated hospitals LRH, KTH and HMC and took permission from heads of the departments for questionnaires filling. Then proceeded to participants explain and sign consent form. After taking consent self administered questionnaires were filled. Different departments were utilized medical, surgical, ENT, paed and others

#### 3.6. Inclusion and Exclusion Criteria

##### 3.6.1. Inclusion Criteria

1. Nurses working at LRH, KTH and HMC Peshawar.
2. Nurses with minimum two years clinical experience.

##### 3.6.2. Exclusion Criteria

1. Those who are absent from the duty.
2. Those who have been on long leave because long leaves can act as confounder it may increase or decrease stress level.
3. Those who working in ICU and CCU units.

#### 3.7. Study Variables

##### 3.7.1. Dependent Variables

Stress

### 3.7.2. Independent Variables

Age, gender, religion, marital status, salary, work experience, job satisfaction, extra working hours/day, designation, work overload, support from colleagues, support from supervisor, troubles with supervisors, stress from management etc.

### 3.8. Data Collection Instruments (Validity & Reliability)

For this study a self administered questionnaire was developed which was tested for validity and reliability through pilot test. For validity and reliability, we filled 15 questionnaires from staff nurses and correction was made accordingly.

### 3.9. Data Collection Procedure

The collection process was completed in two weeks through primary investigators. A self administered- questionnaires were distributed among the participants.

### 3.10. Data Analysis Plan

Data analysis was started simultaneously along with data collection. SPSS-16 was used.

Percentage and frequency were identified and the results were presented, though tables and figures.

### 3.11. Ethical Consideration

1. The study and its purpose were explained to the participants.
2. Correct explanation regarding the study was given and participants were given the opportunity to decide whether or not to participate the research thus obtained their informed consent.
3. All informations gathered from the participants were treated confidentially and were used only for the purpose of the study.

### 3.12. Limitations of the Study

Time factor was one of the limitations because it takes much time to do research, because we had to manage other aspect of our programme. Finance was also one the limitations because money was not provided by any agency, we managed it for our project completion. Acceptance was also a limitation because some of the participants did not cooperate and difficulty was faced. Transport was also one of the huge limitations because we were using private or self transport which was difficult. Availability of staff nurses was also one of the limitations because staff nurses were at different shift. Stress was only assessed in term of factors of stress. ICU and CCU unit or clinical area was not focused while assessing stress and job satisfaction.

## 4. Results

Out of 152 nurses 52(34.21%) from LRH, 50(32.89%) from KTH and 50(32.89%) were from HMC. The study was aimed to include both genders (09%) were male and (91%) were female nurses found in the study. Mostly age of the sample was 25-30 years. Distribution of these nurses, according to their nursing status shows that 138 (91%) were charge nurses, and 14 (09%) were head nurses. More cover, among the 1131 nurses 77(51%) were single, 72 (47%) married, 1 (0.1%) divorced and (0.1%) were widows. Majority of the participants 142 (93%) were Muslims, 10 (07%) of participants were Christians. Majority of the participants of our study were (02-05) years of working experience, which were 69 (45%), while 36(24%) of participants were (06-09) years of experience. The rest of the participants were 10-12 years and more than 13 years working experience were 13(09%) and 34 (22%) respectively. Most of the participants (41%) were having salaries from 30,000- 35,000, secondly (34%) of participants were in the range of 20,000- 25,000. The rest of (25%) of the participants were having the salaries in limits (40,000-45,000 and 46,000) and above respectively.

Serial No.	Question No.	A	B	C	D
Q 1	Age limit in years	21-25 (26%)	26-30 (35%) (***)	31-35 (18%)	>35 (21%)
Q 2	Religion.	Islam (93%)	Christianity (10%)	Hindu -----	Other -----
Q 3	Gender.	Male (09%)	Female (91%)		
Q 4	Marital Status.	Single (51%) (****)	Married (47%)	Widowed (01%)	Divorced (01%)
Q 5	Working Experience in years.	2-5(45%) ( ***)	6-9(24%)	10-12(09%)	>12(22%)
Q 6	Designation.	Charge nurse (91%)	Head nurse (09%)		
Q 7	Do you work for extra hours?	2-4 (60%)	6-8 (20%)	10-12 (15%)	>13(05%)
Q 8	What is your salary limits?	20,000-25,000 (34%)	30,000-35,000 (41%)	40,000-45,000 (12%)	>46,000 (13%)

Table 1: Demographic Statistics n=152

Serial No.	Question.	Yes %	No %
Q 1	Are you getting trouble with Matron/Supervisor/Head nurse? (*****)	65	35
Q 2	Do you feel secured at your job?	59	41
Q 3	Can political influence by others cause stress in your duty?	74	26
Q 4	Is management influence stress in your duty?(*****)	70	30
Q 5	Do you take your holidays as you wish?	42	58
Q 6	Do you agree most of Nurses feel stress during their job?(*****)	81	19
Q 7	As a Nurse do you feel Stress? (*****)	71	29

Table 2: Descriptive Statistics

## 5. Discussion

### 5.1. Related to Demographic Variable

In this study among 152 participants, 139(91%) were female and 13(09%) male. Staff nurses were 139(91%) and 14(09%) were working as head nurses. This finding is also supported by Khan, Farooq, Bano (2006) Peshawar, Pakistan, where majority samples were younger than 30 years, 100% being female and all were (n=148) working as staff nurse and student nurses. This similarity of results led us to the conclusion that stress in nurses has negative correlation with age. Young nurses are having more stress as related to the senior nurses. So it can be studied in future research that why the junior nurses is having stressful life. It can also be concluded from the study that senior nurses may be reluctant to disclose the stress factors in their professional life. This is also one of the research questions for the future study.

In this study majority among the 152 nurses 77(51%) were single, 72 (47%) married the (03%) were divorced or widowed. According to the study conducted by Mohite, Shinde, and Gulavani (2012) majority 57% nurses were married, 45% were married. Although there is a difference in proportion in the results, but still we find single nurses. So this may be one of the causes of stress in nursing. Large numbers of the participants (41%) were having salaries from 30,000- 35,000, secondly (34%) of participants were in the range of 20,000- 25,000. The junior nurses were having less salary so it can be one of the causes of stress.

### 5.2. Related to Job Stress

In the current study, the majority of participants that (81%) agreed, that nurses feel stress during their job, while remaining (19%) was not agreed that nursing is a stressful job. Most of the participants (65%) were having trouble with Matron/supervisor and head nurses, and (35%) have no trouble with them. This finding has also been found in Mohite, Shinde, Gulavani (2012). According to this study, 52% nurses reported frequent occurrence of stress, 32% reported extreme occurrence and 16% reported occasional occurrence of stress because of supervisors as a cause of stress. This congruence in results can be concluded that most of the nurses having stress due to conflicts with supervisors and matrons. Among all considered causes of stress at workplace, uncertainty of concerning treatment, dealing with patients and families, workload, supervisors, Matron and management were responsible causes for frequent occurrence of stress among the majority of nurses. Whereas inadequate emotional preparation, discrimination were causes causing job related stress in most of the nurses. In the current study, majority of participants that (81%) were agreed that nurses feel stress during their job, while remaining (19%) were not feeling stressed during their job. In the current study, majority of participants that 71% were having stress, while remaining 29% were not experiencing stress. When it was asked do you take your holidays as you wish? The participants (42%) answer was yes and majority participants (58%) of them answered with no.

### 5.3. Conclusion

From the study it is concluded, that the majority of participants that (81%) were agreed that nurses feel stress during their job, while remaining (19%) were not feeling stressed during their job. This huge number of stresses in the nursing population of the teaching hospitals of Peshawar is a hot topic for government health policy makers. The findings show that nursing is a stressful job. Most of the stress factors are decreased salaries, political influence, supervisors and insufficient holidays.

## 6. Recommendations

Based on the findings of this study the following recommendations were made:

- Nurses should be provided opportunities for learning stress management strategies and management of conflict resolution with the supervisors.
- Salaries should be increased according to the inflation rate, which can result in decreasing stress and increasing productivity.
- The senior nurses at the management level needs learning management skills for improving relationships with their staff members.
- Conducive environment is needed in nursing profession e.g. welcome parties.
- Nurses' at the management level should provide ways for professional counseling of nurses.
- Stress intervention programme should be introduced in nursing colleges and hospitals.

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