Introduction: Employees in health care sector experience high number of work related injuries. Nurses are more prone to work-related injuries as they are direct patient care providers and are the largest workforce in any health care organizations. Nurses have very critical role in the health care sector and the difficulty in their job nature prone them to varied health risks. Any kind of work-related stress when combined with daily life stress lead to detrimental physical and emotional outcome due to excess physical and mental demand on the human body and mind.

Objectives: The study was aimed to determine psychosocial hazards among nurses and its association with certain independent variables.

Methodology: The study was carried out in one of the government hospital in Dubai, United Arab Emirates. Quantitative descriptive cross-sectional method was used for the study by using a wide range of demographical variables like area of work and job titles. The data was collected over a 6 months period. The tool used for the study was adapted from OHS Vulnerability Measure tool, developed at the Institute for Work and Health based in Toronto, Canada, published in the year Jan 2016. The tool was modified as per the need of the study.

Results: Psychosocial hazard was the most common and frequent hazard observed. There was significant association of area of work with psychosocial hazards (p Value <0.05) and association of psychosocial hazards with job titles was insignificant. (p Value > 0.05).

Conclusion: Psychosocial hazards were observed in nurses of all the job titles, which can be related to the work environment or work pressure and needs further studies.

Key Words: psychosocial hazards, stress, depression, extreme work pressure, verbal abuse.

Introduction hazards are not only important for their recruitment and retention, but the same organizational deficiencies also lead to poor patient outcomes and dissatisfaction¹. Factors that lead to stress in the workplace are workload, leadership, issues with the management, relationship with colleagues and other staff, shift duties, emotional demands and lack of appreciation or reward.² A variety of intrinsic factors in the work setting is well documented that can lead to occupational stress like work overload, promotion, exposure, long working hours, shift duties, new technology. In another study, researchers found there is mild to severe degree of depression in nurses and this mainly affects the work of nurses by feeling unhappy with the work they do³. When an individual is involved in work situations that are emotionally demanding, he experiences physical, emotional and
mental exhaustion and this state can be defined as burnout state, it can also occur when an individual chases unrealistic goals and ends up losing all his energy. The consequences of professional burn out can be dangerous for themselves, patients as well as the organization. Stress in an individual is just not because of a single external event it is a result of a complex set of phenomena acting on a person.

It is evident from the studies that nurses do face psychosocial hazards in many context; study was conducted with the objective to assess psychosocial hazards and its association with certain demographic variables like area of work and job title.

Methodology

Quantitative descriptive cross-sectional method was used for the study by using a wide range of demographical variables. (Unit or area of work and job title). The study was carried out in government hospital, Dubai, United Arab Emirates in the year 2018 and was mainly focused on primary data obtained from the survey. The hospital is a multispecialty hospital catering the needs of both nationals and multi-nationals.

The tool used for the study was adapted from OHS Vulnerability Measure tool, developed at the Institute for Work and Health based in Toronto, Canada, published in the year Jan, 2016. The tool was modified as per the need of the study. The questionnaires used for the study were pretested in order to address the validity and reliability of the tool. To achieve the content reliability pilot study was conducted among 20 staff by doing test-retest method to ensure the same results are obtained when used consecutively. To check the validity of the tool the contents of the tools was finalized after the review of 4 experts in the field of Nursing. The relevance of each question on a 4-point Likert scale was taken to finalize the contents of the tool.

SPSS version 21 was used for analysis. Inferential statistical and descriptive statistics evaluation methods used to analyze the collected data. Chi-square was used for testing the hypotheses.

In all there are 1162 nurses working in the hospital. The study mainly included nurses who are direct patient care providers and judgmental sampling technique was used. In all, 685 surveys were self-distributed by the principal investigator. The response rate was 87 %, a total of 594 completed questionnaires were obtained back out of which 588 were complete in all aspects. Missing data were excluded from the study.

Result

Table 1: Sample Profile.

| Variable                                      | Group                  | f   | %  |
|-----------------------------------------------|------------------------|-----|-----|
| JOB TITLE                                     | Charge Nurse           | 10  | 2   |
|                                               | Senior Staff Nurse     | 35  | 6   |
|                                               | Staff Nurse 3          | 38  | 6   |
|                                               | Staff Nurse 2          | 469 | 80  |
|                                               | Assistant Nurse        | 36  | 6   |
| UNIT (CLINICAL AREA OF WORK)                  | Critical Care and Cardiology Unit | 185 | 31  |
|                                               | Medical and Surgical Unit | 181 | 31  |
|                                               | Gynecology, Maternity and Pediatric Units | 164 | 28  |
|                                               | Out Patient and Day Care Units | 58  | 10  |
| YEARS OF EXPERIENCE                           | 1-5 years              | 223 | 38  |
|                                               | 6-10 years             | 97  | 16  |
|                                               | 11-15 years            | 133 | 23  |
|                                               | 16-20 years            | 48  | 8   |
|                                               | 21-25 years            | 25  | 4   |
|                                               | 26-30 years            | 62  | 11  |
| AGE                                           | 20-30 years            | 131 | 22  |
|                                               | 31-40 years            | 255 | 43  |
|                                               | 41-50 years            | 130 | 22  |
|                                               | 51-60 years            | 72  | 12  |
| NATIONALITY                                   | Indian                 | 365 | 62  |
|                                               | Filipino               | 188 | 32  |
|                                               | Arab                   | 27  | 5   |
|                                               | Others                 | 8   | 1   |
| DIRECT PATIENT CARE PROVIDER                  | Yes                    | 564 | 96  |
|                                               | No                     | 24  | 4   |
| TIME SPENT IN DIRECT PATIENT CARE ACTIVITIES  | 0-2 hours              | 36  | 6   |
|                                               | 3-5 hours              | 36  | 6   |
|                                               | 6-8 hours              | 244 | 41  |
|                                               | 8 hours and above      | 272 | 46  |
Table 1. represents the sample profile of the participants (n=588), 2% are Charge Nurses, 6% Senior Staff Nurse, 6% Staff Nurse 3 (direct patient care providers), 80% Staff Nurse 2 (direct patient care providers), 6% Assistant Nurse. The Unit in the sample profile represents the specialties or department of the respondents. Among the respondents, 31% nurses worked in Critical Care and Cardiology Units, 31% in Medical and Surgical Units, 28% from Gynecology, Maternity and Pediatrics Units, 10% from Outpatient and Day case Unit.

Table 2: Association factors among area of work and stress and depression due to work-place environment

| Units or area of work | Once a year | Every 6 month | Every 1-3 month | Weekly | Total | df | p-value |
|-----------------------|-------------|---------------|-----------------|--------|-------|----|---------|
| Critical care and Cardiology Units | 62 | 17 | 40 | 66 | 185 | 9 | 0.006 |
| Medical and Surgical Units | 58 | 26 | 35 | 62 | 181 | 9 | 0.006 |
| Gynecology, Maternity and Pediatrics Units | 57 | 21 | 46 | 40 | 164 | 9 | 0.006 |
| Outpatient and Day Case Units | 30 | 9 | 13 | 6 | 58 | 9 | 0.006 |
| **Total** | **207** | **73** | **134** | **174** | **588** | **9** | **0.001** |

Table 2 shows that chi-square test was used to determine the association between unit or area of work with stress and depression, the result was statistically significant (p<0.006). Stress and depression due to workplace environment were highest among critical care and cardiology units (35.7%) and in medical and surgical units (34.3%), gynecology, maternity and pediatric units (24.4%) and in outpatient and day care unit (10.3%) on weekly basis. The demand of work increases when there are more critically ill patients so the stress level is more in critical care units compared to the units where there are less critically ill patients.6

Table 3: Association factors among area of work and verbal abuse at work, n=588

| Units or area of work | Once a year | Every 6 month | Every 1-3 month | Weekly | Total | df | p-value |
|-----------------------|-------------|---------------|-----------------|--------|-------|----|---------|
| Critical care and Cardiology Units | 78 | 13 | 34 | 60 | 185 | 9 | 0.001 |
| Medical and Surgical Units | 81 | 16 | 35 | 49 | 181 | 9 | 0.001 |
| Gynecology, Maternity and Pediatrics Units | 94 | 20 | 27 | 23 | 164 | 9 | 0.001 |
| Outpatient and Day Case Units | 43 | 5 | 5 | 5 | 58 | 9 | 0.001 |
| **Total** | **296** | **54** | **101** | **137** | **588** | **9** | **0.001** |

In table 3, the result of the chi-square test revealed that, there is a statistically significant difference between unit and verbal abuse. The relation between these variables was significant (p<0.001). Prevalence of verbal abuse was more in critical care and cardiology area and least in outpatient and day care unit. Overall, 50.3% of staff had faced verbal abuse once a year, 23.3% weekly, 17.2% every 1-3 months and 9.2% every 6 months. Verbal abuse is one of the main psychosocial hazard affecting the majority of nurses. Most commonly nurses face abuse from physician, patient and patient relatives. The ill effects of verbal abuse are low morale, low productivity, poor nursing care, medical errors.7

Table 4: Association factors among area of work and extreme work pressures

| Units or area of work | Once a year | Every 6 month | Every 1-3 month | Weekly | Total | df | p-value |
|-----------------------|-------------|---------------|-----------------|--------|-------|----|---------|
| Critical care and Cardiology Units | 30 | 7 | 41 | 107 | 185 | 9 | 0.001 |
| Medical and Surgical Units | 25 | 8 | 44 | 104 | 181 | 9 | 0.001 |
| Gynecology, Maternity and Pediatrics Units | 27 | 10 | 36 | 91 | 164 | 9 | 0.001 |
| Outpatient and Day Case Units | 25 | 3 | 11 | 19 | 58 | 9 | 0.001 |
| **Total** | **107** | **28** | **132** | **321** | **588** | **9** | **0.001** |
Table 4 represents that from the chi-square test it is found that there is statistically significant difference between unit and extreme work pressure. The relation between these variables was significant, (n = 588), p <0.001. It is evident from the table that more than half the percentage of staff had faced extreme work pressure more frequently. On weekly basis, 32.8% to 57.8% staff had faced extreme work pressure. 19 to 24.3% had faced every 1-3 months, 3.8 – 6.1% had faced every 6 months and 16.2% to 43.1% had faced only once a year. The unit with the highest amount of work pressure is the critical care and cardiology units with 57.8% (on weekly basis) and with least work pressure is the outpatient and day care unit with 32.8% (on weekly basis).

Table 5 shows the association of job titles and various psychosocial hazards. Since the variables in the current study is categorical in their nature, chi-square test was used to find the association between independent and dependent variables. The relation between these variables was insignificant.

**Discussion**

Occupational stress had drawn lots of attention of researchers in psychology, social and medical sciences in recent years. The main reasons of stress identified among nurses were increased demand for work, staff shortage, knowledge deficit and lack of cooperation from other health professionals. Any negative effect on the emotional and physical condition of the person due to an unpleasant experience is defined as stress. In a workplace environment, the support from the peers and the immediate supervisors helps to reduce the stress level. Stress can lead to many disturbing factors in life like family issues, physical illness, alcohol or drug abuse, absenteeism from work, accidents and low output.

Violence in health care has rapidly increased. Among the health care providers, nurses are more exposed to violence. Nurses in health care face violence in the form of physical and verbal abuse. Significant numbers of incidents of violence are reported against nurses. The abusers primarily include patient and patient relatives. Verbal abuse among nurses leads to emotional exhaustion. Hospitals should have a policy of zero tolerance towards verbal abuse. Verbal abuse and lack of support from the management was one of the reasons contributing towards dissatisfied nursing workforce. One of the forms of violence is verbal abuse that leaves no visible scars but the effect remains for long. Nursing turns over in an organization is associated with verbal abuse.

With advancement in the health care sector, work pressure is increasing day by day in health care providers. The demand in the health care industry for experienced nurses increases when nurses leave their profession before their retirement age.
main reason for nurses leaving their profession is the demand in their job and environmental factors. Some of the factors which have an impact on nurses emotional health are taking care of infected patients, extreme workload, staff shortage, an aging workforce, inadequate management support, uncompetitive compensation, poor working conditions, inadequate resources, limited career growth, limited learning opportunities and unsteady work environment. Experienced nurses leave the nursing profession due to financial, social or health reasons. In order to retain nurses it is important to determine whether they can handle challenging job situations, which can be physically, and mentally challenging for them. Workload has a negative effect on job satisfaction, enthusiasm, communication and mental exhaustion of staff, which is a threat to patient safety.

Occupational stress is one of the major concern in the health care industry. Nurses, work-related stress can be dictated by the frequency of psychosomatic symptoms like sleep disturbance, headache, fatigue, palpitations, and use of tranquilizers, alcohol, and smoking. Nurses who are highly educated have less stress when compared to nurses with primary education. Shift duties and nurses aged between 51-60 years were more vulnerable to stress. Level of job satisfaction was also one of the factors contributing to stress. The prevalence and incidence of stress are more among staffs with lower grade as they have less control over their workplace situation. Social support and work environment of an organization play a big role in the reduction of occupational stress among employees. Work-related stress contributes to depression. The two domains in life through which an adult derives satisfaction is work and family life and both of them equally can lead an individual to a stressful situation.

Nurses are often exposed to verbal abuse at work. Verbal abuse can have a great impact on one’s life which can be long-lasting. The effect of verbal abuse can include absenteeism and medical errors. The highest source of verbal abuse among nurses was from their own colleagues, followed by patient’s relatives, doctors, patients, residents and interns. The most common disruptive behavior faced by nurses is verbal abuse. Nurses in their early career are more vulnerable to verbal abuse and this can lead to less organizational commitment, lower job satisfaction and intention to leave the organization.

According to the Health and Social Care Information Center (2015), out of 1.3 million workforces of the National Health Services in U. K, more than 28% of the workforce are nurses. Extreme work pressure is one of the most important causes of emotional exhaustion among nurses, which contributes to low morale, decreased job satisfaction and an intention to leave the job. Any work related stress, when combined with the stress of daily life, can have physical and emotional demand on the human body.

The work environment of an organization and the task handled by the nurses negatively affects the older nurses. Extreme work pressure and job demands faced by nurses leads to fatigue and emotional exhaustion. Extreme work pressure is manifested by time pressure, workload, and conflicting requirements.

Conclusion

Psychosocial hazards are one of the most common hazards faced by nurses and should not be neglected, as it not only affect their own health but also affects patient care. Measures should be in place in any organization to improve the workplace environment.

Recommendation

Work and personal life is interrelated and has an effect on each other. Depression among people with chronic pain or injury is very common. Each staff reporting to work after an injury or illness should be well managed to prevent psycho-social hazards. Measures to be taken into consideration are:

1. To initiate employee wellness programs to address primary and secondary causes of stress and should include counselling and psychological service for employees.
2. To include stress management training for all employees on yearly basis.
3. To encourage social support from immediate line managers, supervisors and peers in order to create positive practice environment.

**Ethical Consideration**

The Ethical committee approval was taken from Dubai Research and Scientific Committee. Prior to data collection consent form was duly signed by each respondents and the respondents were assured that their response will be confidential.

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