

# **Research Paper**

**Medical Science** 

# Job stress among staff nurses working in critical care units and their Socio-demographic correlates: A cross sectional survey

Ms. Archana K Raj

Assistant Professor, Pediatric Nursing Department, Sree Gokulam Nursing College, Trivandrum-695607, Kerala.

**ABSTRACT** 

Nursing has long been considered as one of the most stressful profession. A cross sectional survey was conducted with the objectives of assessing the job stress and its socio demographic correlates among fifty nurses working in the critical care units (Medical ICU, Post-operative ICU, CCU, Neuro ICU, Pediatric ICU, Neonatal ICU and Casualty) of

selected Hospital, Trivandrum, which is a 600 bedded multi-specialty hospital. Samples recruited using random sampling method. Data was collected using a socio demographic Performa and Wolfgang health professions stress inventory scale. The main study was conducted after the approval of research committee. The findings revealed that majority of the subjects (52%) have moderate stress. 42% of the respondents have moderate stress and 6% of staff nurses have no stress. There was a significant association between area of working and level of stress (p=0.041) and also a significant association between experience in nursing profession and level of stress (p=0.015).

# **KEYWORDS**: Job stress; Staff nurses; critical care units.

# Introduction:

The determinants of health include the social and economic environment, the physical environment and the person's individual characteristics and behaviors; according to World Health Organization. According to WHO Expert Committee (1985), work-related diseases are defined as a "wide spectrum of diseases of multi factorial etiology, which are partly associated with profession or working conditions". In addition to well-known physical, chemical and ergonomic factors, indirect mechanisms such as psychosocial factors and chronic professional stress may play an important role in the development of such diseases Occupational stress occurs when demands of the working environment overpower the capacities of workers to cope with them.

Nursing has long been considered one of the most stressful profession. Stress in the nursing is attributed largely to the physical labor, suffering and emotional demands of the patients and families, work hours ,shift work, interpersonal relationship and other pressure that are central to nurses do. Factors that have increased stress among nurses since 1980s include rising use of healthcare technologies, budget cut, increase overload and constant organizational changes in some healthcare environment. Stress not only adversely affects the health, safety and wellbeing of nurses at the individual level. It also negatively affects the health care organization. Research indicate that the stress fostered by workplace bullying psychological aggression and destructive behavior affects healthcare costs, turnover and retention.

Workplace stress has long been recognized as a challenge for the nursing profession stress is perceived when environmental demands exceed the individual demands exceed the individual resources. Lazarus considered stress as the transaction involving individual and his or her environment. There is growing body of research about stress in nursing in addition to some general indications. For example, occupational mortality figures in early 1980s indicated that the suicide rate for female nurses was significantly higher than national average.

The practice of the nursing profession occurs mostly in hospital environments, demanding more involvement from the professional. Inpatients suffer considerably because of this situation. Being away from home, from work, and the lack of information about what is happening and what will happen to him/her causes an intense emotional overload. It is up to nurses to provide him/her with the necessary comforts for recovery. Therefore, nursing is in constant contact with suffering, pain, desperation, irritability, and other reactions that patients may have because of their situation.

Within the hospital context, the intensive care units have already been the focus of several research studies related to nurses' stress. It is known that this sector in the hospital is tasked with caring for patients in an acute or critical state, but within the possibility of recovery; patients who require specialized, permanent medical and nursing

care; patients subject to having unstable vital functions, who need the support of special equipment for treatment and diagnosis.

The working environment of intensive care unit nurse is constant source of stress researches have described CCU as stressful environment because of the complex nature of patient's health problems requiring an intensive use of very sophisticated technology. Nurses not only have to cope with sophisticated technology but also regularly face ethical dilemmas concerning issues of patient care management the changes in health care delivery has also created new nursing roles and responsibilities and has also contributed to source of stress.

Light Irin C, Bincy R (2012) conducted a study regarding differences and similarities in sources and levels of job stress among critical care nurses working in different ICU s of Medical college Hospital of Trivandrum. The tool was work stress inventory scale and the results shows that the commonest source of stressors were caring for patients, general job requirements and work load and the medical ICU nurses were more stressed comparing to other ICU s 54% of nurses severely stressed and 42% of nurses moderately stressed. Similar studies have been conducted in various settings among nursing population ( *BorhaniF,Abbaszadeh A, et al 2014,* Fang L, Chung Y H et al 2014, Huda Al-Makhaita M, Amr A . Sabra et al 2014, Myhren H, Ekeberg O et al 2013,Dragana N B, Nina et al 2011 and Gholamzadchs F, sharif , Rad F, et al 2011)

# **Materials & Methods:**

The study adopted a quantitative approach with a cross sectional descriptive survey design. The study was conducted in the critical care units (Medical ICU, Post-operative ICU, CCU, Neuro ICU, Pediatric ICU, Neonatal ICU and Casualty) of selected Hospital, Trivandrum, which is a 600 bedded multi-specialty Hospital. The sample for the present study comprised of 50 staff nurses working in critical care unit's recruited using simple random lottery sampling method. Data was collected using a socio demographic Performa and Wolfgang health professions stress inventory scale. Socio demographic Performa assessed the age, sex, and area of working, experience in nursing profession, ICU experience, qualification, marital status and nature of family; of all the subjects. Wolfgang health professions stress inventory scale is a standardized tool which 31 multiple choice questions, its total score is 124. 0 – 31 is considered as No stress, 32 – 62 is Mild stress, 63 – 93 is Moderate stress and 94 – 124 is considered as High stress.

Main study was conducted after the approval of research committee. Permission was obtained from the head of the institution. The purpose and details of the study was explained to the subjects and assurance was given regarding the confidentiality of the data collected. The investigator selected different critical care units of selected hospital Trivandrum for data collection. Data was collected for a period of 3 days from 28/06/2015 to 30/06/2015. After developing a good rapport, the investigators gradually introduced the tool to the staff nurses with adequate confidentiality and convincing the staff nurses.

#### Results:

# Socio demographic data of subjects

Majority (80%) of respondents belonged to 21-30years of age, (90%) were females, (28%) were working in MICU, and 46% of the staff nurses have 2-5 years of experience in nursing profession. Majority of the respondents (40%) have 2-5 years of ICU experience, 60% of respondents were GNM gualified.

# Level of job stress among nurses

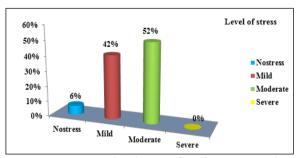


Figure 1: Percentage distribution of staff nurses according to level of stress.

Figure 1 reveals that majority of the subjects (52%) have moderate stress. 42% of the respondents have moderate stress and 6% of staff nurses have no stress.

# Association of level of stress and socio demographic variables

Chi square test was used to compute association between level of stress and selected socio demographic variables of study sample. There was a significant association between area of working and level of stress (p=0.041) and also a significant association between experience in nursing profession and level of stress (p=0.015).

### **Discussion:**

In the present study results revealed that 52% of staff nurses have moderate stress, 42% of staff nurses have mild stress and 6% of staff nurses have no stress. Majority of the staff nurses (68%) have more stress in caring for terminally ill patients.64% of staff nurses have stress in dealing with difficult patients. 50% of nurses have no stress in experiencing conflicts with co-workers. 36% of nurses have opportunities to share feelings and experiencing with colleagues. Majority of the nurses (64%) feels that he/she inadequately paid as a health professional. 34% of nurses fearing that a mistake will be made in the treatment of a patient. Most of the nurses experiences stress when enough staff is not to provide necessary services. 28% of nurses can adequately prepared to meet the needs of the patients but 8% of nurses do not get enough time to prepare to meet patient needs. 30% of nurses being challenged by his/her work.

The finding is supported by Light Irin C, Bincy R (2012) conducted a study regarding differences and similarities in sources and levels of job stress among critical care nurses working in different ICU s of Medical college Hospital of Trivandrum; in which results showed that the commonest source of stressors were caring for patients, general job requirements and work load.

In this study there is a significant association between area of working and experience in nursing profession with level of stress. But there is no association between other demographic variables (age, sex, ICU experience, qualification, nature of family and marital status) and level of stress. This finding is supported by Y.S Halaand M.I Manal conducted a study in Makkah Al-Moukarramah, KSA regarding Stressors among Nursing Staff Working in Intensive Care Unit in Governmental & Non-governmental Hospitals at Makkah Al-Moukarramah, KSA. The study revealed that determinants causing the stress in CCU nurse could be due to increased job demand, nursing shortages, overload of work, and lack of support from colleagues a lot of paperwork and high expectations from the superior. There was a significant association between professional experience and level of stress.

REFERENCES

1. Stress at work. Center for disease and prevention.NOISH Publications.No99-101available from http://www.cdc.gov/noish/docs/99-101 2. White D, Tonkin J registered nurse stress in intensive care units an Australian perspective edition intensive care nurses. 1991 march 7th volume (1), Page No. 45-52. 3. Irin Light C. R Bincy difference and similarities in sources and levels of job stress among critical care nurses work-

ing in different ICUs of Medical college HospitasTrivandrum . the official journel of trained nurses association India vol 7: march 2012 page no-12-17 4. Y.S. Halaand M.I Manal. Stressors among Nursing Staff Working in Intensive Care Unit in Governmental & Non-governmental Hospitals at Makkah Al-Moukarramah, KSA. Journal of American Science, 2012;8(6). Available from http://www.americanscience.org 5. Polit.DHungler. Nursing research, generating and assessing evidence for nursing practice . 9th edition.2011. Woltter and Klower publications. P-695-696. 6. FaribaBorhani, Abbas Abbaszadeh, et allran regarding The relationship between moral distress, professional stress, and intent to stay in the nursing profession Journal of Medical Ethics and History of Medicine 2014. 7(2014):3-available from ,http://jmehm.tums.ac.ir/index.php/jmehm/article/view/120.pdf 7. Fang L, Chung Y et al. The Predictors of the Job Stress among Female Married Hospital Nurses journel of industrial health 2014 May 7 available fromhttp://www.ncbi.nlm.nih.gov/pubmed/24807125 8. Hilde Myhren, Oivind Ekeberget al (2013) Job Satisfaction and Burnout among Intensive Care Unit Nurses and Physicians Intensive Care Unit, Oslo University Hospital, NorwayCrital Care Research and Practice . 2013; 2013: 786176.PMCID: PMC3835606 9. Dragana. 8 professional stress and health in icu nurses in erbia faculty of medicine, department of nursingSerbia Arthigradatoksikol 2012;63:171-180 10. Gholamzadchs, sharif F, Rad FD, Sources of occupational stress and coping strategies among nurses who work in admission and emergency Department of hospital related to Shiraz university of Medical Sciences. Edition Iran J. Nurses – Midwifery Res-2011, 16th Volume (1) Page No.41-46. 11. GuiyuanQiao, MSN, RNSijian Li et al sage jounelsPublished online before print May 12, 2011, doi:10.1177/1084822311405828?patientinform-links=yes&legid=sphc;108482231140582871 12. Mohsen Adib-Hajbaghery, MarziehKhamechian, et al conducted a study in iran regarding Nurses' perception of occupational