

# An Assessment of level of work – Related Stress Among Nursing Officers at District General Hospital Vavuniya In Sri Lanka

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**Abstract-** Nursing is a stressful profession that deals with human aspects of health and illness. High level of work related stress may be a threat to patient safety. To assess the level of work – related stress among nursing officers at District General Hospital Vavuniya in Sri Lanka.A cross –sectional descriptive study was carried out at District General Hospital Vavuniya from Dec.2nd, 2014 to march 15th, 2015 to assess the level of work – Related Stress among Nursing Officers at District General hospital Vavuniya in Sri Lanka. A total 220 Nursing Officers participated and a self – administered questionnaire was used to obtain data. The Nursing Stress Scale was used to assess the level of stress among nursing officers. This study found that high stress levels were significantly associated with 40-49 year age group ( $p<0.001$ ), residing in own home ( $p=0.015$ ), spouses home ( $p=0.031$ ), loneliness ( $p=0.023$ ) having children of less than six years of age ( $p=0.024$ ), three to five years of service ( $p=0.021$ ) grade financial status was associated with significantly low stress level ( $p=0.011$ ). The Hospital nurse workforce is experiencing high workload and are associated with burnout and job dissatisfaction, precursors to voluntary turnover that contribute to the understaffing of nurses in hospitals and poorer patient outcomes.

**Index Terms-** work related stress, nursing officer, District General hospital

## I. INTRODUCTION

Work is a significant source of stress in all occupations a nationwide poll by the American psychological association ;(APA) showed that Approximately 75% of Americans experienced substantial stress at work and nearly half noted that their work productivity decreased because of the stress . A cross –sectional descriptive study is conduct in District General Hospital Vavuniya from Dec.2<sup>nd</sup>, 2014 to march 15<sup>th</sup>, 2015. To assess An Assessment of level of work – Related Stress among Nursing Officers at District General Hospital Vavuniya In Sri Lanka

Work related stress is defined by the National Institute for Occupational Safety and Health Administration (NIOSH) as “the harmful physical and emotional responses that occur when the necessities of the occupation do not go with the capabilities, resources, or needs of the employee”. Work related stress is not

harmful as we feel all the time. Therefore it is not reasonable to discuss in a negative context all the time as it has a positive value as well. The phenomenon of stress in the place of work is of great significance in health care. It is one of the most demanding professions and justified considering and investigating work – related stress, since performance declines under stressful situations. In the current context “quality” and “Productivity” is vital for organizational survival. Therefore, stress at workplace becomes a concern to institutional administrators. Among the health care professionals especially nurses are considered a high risk group regarding work stress and burnout. (Jogindrāvati, 2013)

Nursing is a stressful profession that deals with human aspects of health and illness (Abushaikha and Saca – Hazboun, 2009). Moreover, can ultimately lead to job dissatisfaction and burnout. Burnout is a mental condition defined as the body’s response to the failure of the coping strategies that individuals typically utilize to manage stress at work (Marin and Campayo, 2010). The accumulation of stress exhausts individuals to the point where their energy resources are insufficient for their attempts to overcome the pressure of a situation in which they work with other people (Galanakis, 2009). The worker loses the interest and positive sentiments that he/she had for individuals assisted and develops a negative self – image (Lauvrud, et. Al.2009)

The understaffing of nurses and the overwork of health professionals in hospitals were ranking by consumers as major threats to patient’s safety. In addition, more patients are bringing their own caregivers to the hospital with them. Research on job – related burnout among human service workers, nurses in particular, suggests that organizational stressors in the work environment are important determinants of burnout and subsequent voluntary turnover.

Nurses are especially vulnerable to the burnout, and this is of particular concern for several reasons (Maslach, 2003). First, nurses represent the largest faction of healthcare professionals, with more than 2.6 million nurses in the United States, and they are the frontline for direct patient care in hospitals. Second, job dissatisfaction and subsequent burnout have been attach to nursing turnover, which has led to the nursing shortage that began in the late 1990s (Lafer et al 2012).

This article examines the association between nurse burnout and patient satisfaction, and explores whether the factors that account for nurse burnout also account for patient dissatisfaction.

The findings are important to understanding how to simultaneously stem the flight of nurses from hospital bedside care and improve patient satisfaction with care (Vahey, et, al, 2004)

## II. OBJECTIVES

To assess the level of work – related stress among nursing officers at District General Hospital Vavuniya in Sri Lanka.

## III. METHODS

A Hospital based descriptive cross sectional study was carried out in a selected tertiary care hospital in Sri Lanka .A total 220 Nursing Officers participated and a self – administered questionnaire was used to evaluate the level of stress in Nursing Officers.

### 3.1 Questionnaire

The Questionnaire developed by the Principal Investigator (PI) to obtain necessary information on socio demographic

characteristics and service related factors to describe their relationship with the level of work related stress. Socio demographic characteristics included age, Sex, ethnicity, religion, marital status, level of education, distance from the residence to the hospital and whether having children and if so their age. Service related factors considered were working unit, grade, total service period and years of service in SJGH. The Nursing Stress Scale was used assess the level of stress among nursing officers. Pamela Gray Toft, James G.Anderson (1981) developed this instrument to assess the frequency and the major sources of stress perceived by Nurses in Hospital units. This is the most widely used and well known scale which consists of 34 items that describe situations that have been identified as causing stress for nurses in the performance of their duties. It provides a total stress score as well as scores on each of seven subscales that measure the frequency of stress experienced by nurses in the hospital environment. (Pamela Gray – Toft, James G.Anderson, 1981). Minor modifications to this questioner were made to suit the Sri Lankan context considering the cultural and other health sector related issues

### 1 Sub scales and items of the questionnaire following main categories

Seven sub scales and 34 items are classified under the

|                                       |   |   |
|---------------------------------------|---|---|
| Factor 1 : Death and dying            | : | 7 items (B3,B4,B6,B8,B12,B13 and B21)     |
| Factor 11: Conflict with physicians : |   | 5 items (B2, B9, B10, B14, and B19)       |
| Factor III: Inadequate preparation :  |   | 3 items (B15, B18, and B32)               |
| Factor IV: lack of Support :          |   | 5 items (B2, B9, B14, and B19)            |
| Factor V: Conflict with other nurses: |   | 5 items (B5, B20, B22, B24, B29,)         |
| Factor VI: work load                  | : | 6 items (B1, B25, B27, B28, B30, and B34) |
| Factor VII: Uncertainty concerning :  |   | 5 items (B17, B26, B31, B32, and B33)     |

## IV. RESULTS

Numerical data were summarized as means and standard deviations and categorical data were summarized as percentages analysis of variance (ANOVA) and post hoc analysis was carried out to assess the statistical significance of socio – demographic and service related characteristics with the different factors which affect leave of stress of nursing officers all inferential statistics were tested at 5% significance (P<0.05) dependent variable the work related stress was assessed in the following manner level of overall work related stress was calculated by the total score obtained from B1 to B34 and total

score that measures the overall frequency of stress experienced by a nurse was evaluated by Adding the individuals responses to all 34 items the scores obtained for these Questions were calculated for mean and means were compares total scores range from 0 to 102, with higher scores indicating more frequent stress

### 4.1 level of Stress

The mean stress score for the each factor was calculated and the mean total score for each respondent was calculated there was a total of 34 items to measure stress each choice carried scores as follows ,never (0) occasionally (1) frequently (2) and very frequently (3) accordingly total scores range from 0 to 102

**Table 1 distribution of factors and scores allocated**

| Factor                                    | No items | of  | maximum score |
|---|----------|-----|---------------|
| Factor 1 : Death and dying                | :        | 7   | 21            |
| Factor 11: Conflict with Supervisor       | :        | 5   | 15            |
| Factor III: Inadequate preparation        | :        | 3   | 09            |
| Factor IV: lack of Support                | :        | 5   | 09            |
| Factor V: Conflict with other minor staff | :        | 5   | 15            |
| Factor VI: work load                      | :        | 6   | 18            |
| Factor VII: Uncertainty concerning        | :        | 5   | 15            |
| total                                     | 34       | 102 |               |

### 4.2 stress score

**Table 4.13 shows that the analysis of total scores and the mean score was 32.2**

**Table 4.31 summary of vital statistics on stress score of the study population**

| Statistic       | Value |
|-----------------|-------|
| Mean            | 30.2  |
| Median          | 30.5  |
| Mode            | 32    |
| Std . deviation | 10.3  |
| Minimum         | 03    |
| Maximum         | 66    |

The distribution of total score was in a normal distribution according to the test of normality (Shapiro –wilk value 0.993,df=360,p

This study revealed that high stress levels were significantly associated with 40-49 year age group ( $p < 0.001$ ), residing in own home ( $p = 0.015$ ), spouses home ( $p = 0.031$ ), loneliness ( $p = 0.023$ ) having children of less than six years of age ( $p = 0.024$ , three to five years of service ( $p = 0.021$ ) grade financial status was associated with significantly low stress level ( $p = 0.011$ )

#### V. DISCUSSION

The Hospital nurse workforce is experiencing greater workloads resulting from shorter hospital stays, rising average patient acuity, fewer support resources, and a national nurse shortage. Higher nurse workloads are associated with burnout and job dissatisfaction, precursors to voluntary turnover that contribute to the understaffing of nurses in hospitals and poorer patient outcomes.

In addition the study results show that the patients are partially satisfied with nursing care that provided at medical and surgical wards. These results supported by Vahey, et al., 2004. They studied the impact of the nurses' burnout on the patients' satisfaction; they find that most of the patients are partially satisfied with nursing care.

Furthermore the study results show that there is a highly significant impact of the nurses burnout on the patients' satisfaction with the nursing care. These results supported by Vahey, et al., 2004. They studied the impact of the nurses' burnout on the patients' satisfaction; they find that there is a high significant impact of the nurses' burnout on the patients' satisfaction with nursing care.

#### VI. CONCLUSIONS

According to the study findings and discussion, the study concluded that nurses are exposed to some burdens due to the practice environment, and this makes them burned. The nurses' burnout affects the patients; satisfaction with nursing care.

A high level of work-related stress among them is a considerable health issue which needs to be addressed by health care managers implementing effective coping strategies.

#### VII. RECOMMENDATIONS

Based on the study conclusion the study recommends the following:

An intensive comprehensive wide population-based (national level) studies conducted to assess the impact of nurses' burnout on patients' satisfaction with nursing care. In addition, to assess the factors that improve the practice environment, as well as improve the nurses' job satisfaction and prevent their burnout, to improve the quality of care services and the patients' satisfaction with such services.

#### REFERENCES

- [1] Apply M.H. and Trumbull R. 1967 (Eds) psychological stress New York Appleton –century crofts
- [2] Beemsterboer J. Baum B.H 1984 "Burnout" definitions and health care Management social work in health care 10(1) :97-109
- [3] Calgary health region news release ,14th April 2005
- [4] Cartwright L.K. 1979 Sources and effects of stress in health careers San Francisco Jossey Bass Cassem N.H. and Hackett, 1979. T.P Sources of tension for the CCU nurse American journal of nursing 72:1426-1430
- [5] Cavanaugh M.A. Boswell W.R. Roehling M.V. and Boudreau J.W. 2000 An Empirical examination of self-reported work stress among U.S. managers, Journal of Applied psychology :65-74
- [6] Cooper, C.L and Cartwright S. 1997, an intervention Strategy for work place Stress. Journal of psychosomatic research, 43:7-16
- [7] Cooper C.L. and Philip J.D. Michel, P.O 2001 organizational stress sage publicatio first Edition Daily News, 3rd September, 2007, p.3, col.
- [8] Folkman S. and Lazarus R.S 1980, An Analysis of coping in a middle-aged community sample journal of health social behavior 21:219-239.
- [9] Freudenberger H.J. 1974, 'Staff Burnout' Journal of social issues 30:197-204
- [10] Frydenberg, E. and Lewis, R. 1993, 'Boys play sport and girls turn to others: Age, Gender and ethnicity as determinants of coping. Journal of adolescence 16: 253 – 266.
- [11] John, M.I. and Konoposke, R. 2013, 'Labour management relations and promoting safety and health. Human Resource Management, 12: 542 -544.
- [12] Lazarus, R.S. 1966, Psychological Stress and the coping Process. New York: McGraw – Hill.
- [13] Lazarus, R.S. and Folkman, S. (1984). Stress, Appraisal, and Coping. New York: Springer.
- [14] Mahinda Amaraweera report, 2010, Sri Jayawardenepura General Hospital pp: 9.

- [15] Maslach, C, Jackson, S.E. and Leiter, M.P.1997, Mashlach Burnout inventory. Evaluating Stress: A Book of Resources.Zalaquett, C. P. and Wood, R.J.Lanham, Md, & London, The Scarecrow Press, Inc.
- [16] Machie S. Williams, S. 2002, Causes and management of stress at work. Occupational environmental medicine, 59: 67 – 72.
- [17] .Machie S. Williams, S. 2003, ‘ Reducing psychological ill health and associated sickness absence: A systematic literature review. Occupational environmental medicine, 60: 3-9
- [18] Nanayakkara, G. 1988, ‘Training in hospital administration. Research paper: Organizational behavior 88 – 2, PIM, page 1.
- [19]
- [20] NIOSH, 1999, Stress at work. U.S.National institute for occupational safety and Health, DHHS (NIOSH) Publication Number 99 – 101.
- [21] Pamela Gray – Toft, James, G.Anderson, 1981, Development of an instrument: The Nursing Stress Scale. Journal of behavioral assessment, Volume 3, Issue 1, pp 11 – 23.
- [22] Schaufeli ,W.Maslach, C. and Marek, T. 1993, Professional burnout: Recent developments in theory and research. Washington, D.C: Taylor & Francis.
- [23] Schwarzer, R. and Stewart, S.M. 1996, ‘Stability of coping in Hong Kong medical students: A longitudinal study’. Personality and Individual Differences. 20: 245 – 255.
- [24] World Health Organization, 2005, ‘Mental Health policies and programmes in the work place. ‘ Mental Health policy and service guidance package, pp: 9 – 25.
- [25] World Health Organization, 2008a. First Global Forum on Human Resource for Health: The Kampala declaration and agenda for global action. Kampala, Uganda, 2 -7 March 2008. Geneva: World Health Organization.
- [26] Yperen, N.W.V. and Janssen, O. 2002, ‘Fatigued and dissatisfied or fatigued but satisfied? Goal orientations and responses to high job demands Academy of Management Journal, : 1161 – 1171.
- [27] Zivnuska, S. Kiewitz, C. Hochwarter, W.A.Perrewew .P.L. and Zellars.K.L2002, ‘What is too much or too little? The curvilinear effects of job tension and turn over intent, value attainment, and job satisfaction, Journal of applied Socail Psychology: 1344 – 1360.

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