Occupational stress among Nursing Officers in General Wards; National Hospital Kandy, Sri Lanka

Wathsala Dilini Kumari Wijesinghe*, **Wijewardane Abeywickrama Nishshanka*** , Eresha Fernando****

* Deputy Director (Port Health Services)
** Medical Superintendent District Base Hospital Rikillagaskada
***Director, National Hospital, Kandy

Abstract- Introduction: Nursing is an inherently demanding profession that requires both clinical expertise and emotional resilience. The challenging nature of nursing, involving long hours, high-pressure situations, and constant exposure to suffering, often results in significant stress among professionals. This stress not only impacts the mental and physical health of nurses but also has implications for patient care and healthcare system efficacy. This study explores factors contributing to occupational stress among nursing professionals and emphasizes its far-reaching consequences.

Objective: The primary objective is to evaluate occupational stress among nursing officers in the general wards of National Hospital Kandy, Sri Lanka.

Methods: A hospital-based descriptive cross-sectional study was conducted with 140 nursing officers from general wards. The Nursing Stress Scale (NSS), developed by Pamela Gray-Toft and James G. Anderson, assessed stress levels. The study employed a stratified random sampling method.

Results: The analysis focused on internal and external validity, with a response rate of 97.7%. The NSS revealed varying stress factors, and the total stress score distribution was categorised into mild, moderate, and severe stress levels. The majority of nurses in general wards experienced mild stress (65.9%), with 34.1% reporting moderate stress.

Conclusions: The study identifies a potential inequality in the distribution of hospital staff across units. While various demographic variables were explored, the current working unit emerged as a statistically significant modifiable factor related to stress. Nurses in general wards at National Hospital Kandy predominantly experience mild stress, indicating a need for targeted interventions to promote a healthier work environment and enhance overall well-being.

Index Terms- Nursing, work-related stress, emotional resilience, patient care, healthcare system, National Hospital Kandy, Sri Lanka, Nursing Stress Scale

I. INTRODUCTION

Nursing is a demanding profession that requires not only clinical expertise but also emotional resilience and adaptability. However, the nature of the job, which involves long hours, high-pressure situations, and constant exposure to suffering and critical decision-making, often leads to significant stress among nursing professionals. Work-related stress in this field not only affects the nurses' mental and physical health but also has implications for patient care and healthcare system efficacy. Nursing, while a rewarding and essential profession, is fraught with challenges that often lead to significant work-related stress among its practitioners. The demanding nature of the job, which involves round-the-clock care, critical decision-making, and emotional labour, can take a toll on the mental, physical, and emotional well-being of nurses.

Factors Contributing to Occupational Stress Among Nursing Professionals:

Heavy Workload: Research has consistently shown that excessive workloads, including extended shifts and high patient-to-nurse ratios, contribute significantly to stress among nurses (Aiken et al., 2012); Emotional Demands: The emotional labor involved in nursing—dealing with patient suffering, end-of-life care, and challenging family dynamics—frequently leads to emotional exhaustion and burnout (Stamm, 2010); Staffing Issues and Resource Constraints: Insufficient staffing and limited access to essential resources further amplify stress levels among nursing professionals, affecting their ability to provide quality care (Kang et al., 2018).

Shift Work Challenges: Irregular working hours and rotating shifts disrupt circadian rhythms, contributing to sleep disturbances and a lack of work-life balance, which are significant sources of stress among nurses (Dall'Ora et al., 2015); Organizational Climate and Support: Job insecurity, poor workplace relationships, and a lack of organizational support systems are known to significantly impact the stress levels of nursing staff (Al-Hamdan et al., 2018).

Impact of Occupational Stress:

The implications of occupational stress among nursing professionals extend beyond individual well-being to affect patient care and healthcare systems:

Increased turnover rates and reduced job satisfaction among nurses directly impact healthcare service continuity (Hayes et al., 2012); Higher stress levels correlate with a greater incidence of mental health issues like anxiety and depression among nursing professionals (Adriaenssens et al., 2015).

Occupational stress is linked to a higher prevalence of medical errors and compromised patient safety (Ramanujam et al., 2015). The overall efficiency and performance of healthcare systems are significantly affected by the prevalence of occupational stress among nursing professionals (Leiter et al., 2015).

Occupational stress among nursing professionals demands attention not only for the well-being of nurses but also for the enhancement of patient care quality and the sustainability of healthcare systems.

Objective

To evaluate the Occupational stress among nursing officers in general wards at National Hospital Kandy, Sri Lanka

II. METHODS

A hospital-based descriptive cross-sectional study was carried out in a pioneer national hospital in Sri Lanka. A total of 140 Nursing Officers participated from general wards and a self-administered questionnaire was used to evaluate the level of stress in Nursing Officers. The stratified random sampling method was used to select the sample.

1.1. Questionnaire

The Nursing Stress Scale (NSS) was employed to evaluate the stress levels among nursing officers, with permission obtained from the original developers and validators of the questionnaire, Pamela Gray-Toft and James G. Anderson (1981). This instrument was designed to gauge the frequency and primary sources of stress perceived by nurses in hospital units. Widely recognized, the NSS is a comprehensive scale comprising 34 items that delineate situations identified as stress-inducing in the performance of nursing duties. The scale not only provides an overall stress score but also furnishes scores on seven subscales, offering a nuanced understanding of the frequency of stress experienced by nurses in the hospital environment (Pamela Gray-Toft & Anderson, 1981).

III. RESULTS

The calculated sample size was 140 and 135 nurses participated in the study representing general wards. The response rate was 97.7% in the current study. The analysis of the sample data was focused on testing the internal and external validity of the study while addressing the study objectives. The demographic data were analyzed with descriptive data analytical methods using SPSS and are been presented below.

1.2. Relationship of stress factors to characteristics of the study subjects

In a stress study involving nurses at a tertiary care hospital in India, a modified stress inventory served as the study tool, comprising 50 items with a maximum total score of 100. The researchers segmented the score range into three categories to denote mild stress, moderate stress, and severe stress accordingly (Sreelekha & Rajeswari H, 2016).

In a separate study, stress levels were assessed using a 10-item score system, with the total score similarly divided into three categories (Jordan, Khubchandani, & Wiblishauser, 2016).

Adhering to global literature standards, the total score (maximum 102) in our study was categorized into three groups: mild stress (1-34), moderate stress (35-68), and severe stress (> 69). A total score of 0 was considered indicative of no stress.

Table 1 - Distribution of factors and scores allocated

Factor	No. of items	Maximum Score
Factor I: Death and dying	7	21
Factor 11: Conflict with physicians	5	15
Factor III: Inadequate preparation	3	09
Factor IV: Lack of support	3	09
Factor V: Conflict with other nurses	5	15
Factor VI: Workload	6	18
Factor VII: Uncertainty concerning treatment	5	15
Total	**34**	**102**

Responses in each item were "Never, Occasionally, Frequently, and Very Frequently". The allocated score for those responses was '0, 1, 2, 3" respectively. The responses where the participants had not been answered were replaced with the mean value of the particular variable and they were added together to calculate the total stress score. The distribution of stress levels in the sample when the above scoring system was practised is shown below.

1.3.   The level of occupational stress among nursing officers in general wards

Table 2 - Summary of vital statistics on total stress score in the study sample

Statistic	Value
Mean	29.3
Median	29.0
Mode	24.00
Std. Deviation	9.702
Minimum	8.00
Maximum	66.00

The mean and median of the study sample lies closely while the mode was slightly deviated to left side of the distribution curve.
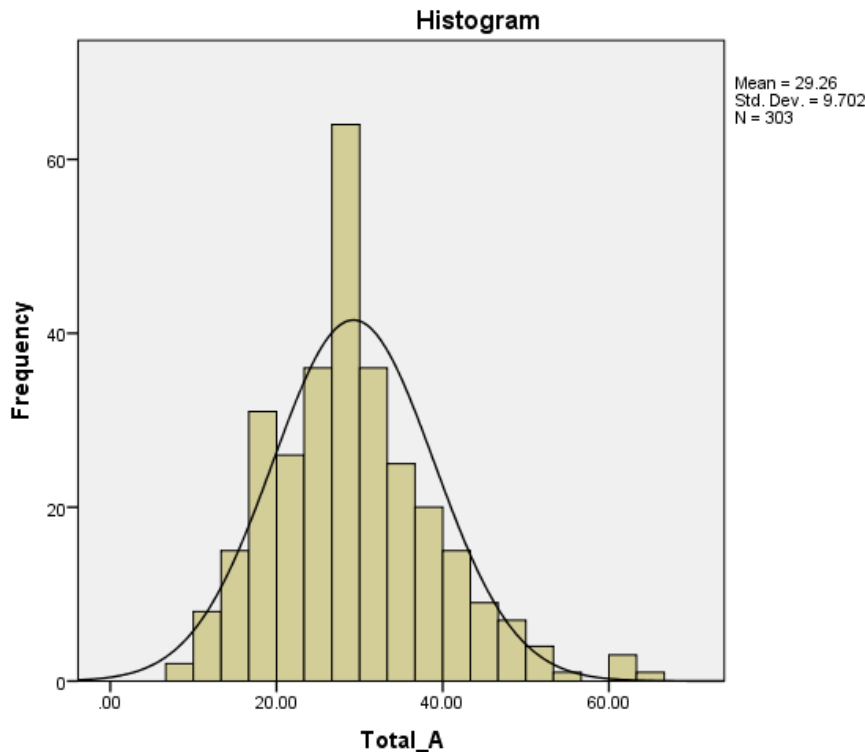

Mean = 29.26
Std. Dev. = 9.702
N = 303

Figure 1 - Distribution of total stress score among nurses in the study sample

Minimum score was 8 and the maximum score was 66 in the study sample. Many of the scores were concentrated to the middle with inter quartile range varying from 23 to 34 in the scale.

Table 3 - Distribution of stress levels among nurses in general wards

Stress Level		General Wards
Mild Stress	Number	89
	%	65.9
Moderate stress	Number	46
	%	34.1
Total	**Number**	**135**
	%	**100.0**

A higher percentage of nurses were identified as mildly stressed and only 34.1% of nurses were moderately stressed.

Discussion

High-stress levels among nurses can potentially compromise patient care. Studies, such as those by Boyle et al. (2017), have shown a significant association between nurse stress and patient outcomes. Mild stress may not directly impede performance, but understanding the threshold for when stress becomes a factor in patient care is crucial. Identifying the root causes of stress is pivotal. The American Nurses Association (ANA) emphasizes workload, lack of control, and interpersonal conflicts as common stressors. Additionally, a study by McVicar (2016) highlights the importance of considering organizational climate and leadership in stress management.

The distribution of stress levels reflects the workplace environment. A positive work environment can alleviate stress. The Joint Commission's guide on healthcare worker well-being emphasizes the role of the organization in creating a supportive culture. Prolonged mild stress may have cumulative effects on mental and physical health. The World Health Organization (WHO) recognizes occupational burnout as a syndrome resulting from chronic workplace stress. Strategies for preventing burnout are crucial.

Comparing stress levels over time is essential. The National Institute for Occupational Safety and Health (NIOSH) provides resources for assessing stress in healthcare workers, aiding in longitudinal studies to track changes. Implementing stress-reduction interventions is vital. The American Psychological Association (APA) offers resources on workplace stress and strategies for employers. Tailoring these interventions to the unique challenges of nursing is crucial. Stress levels can impact nurse retention. Research by Aiken et al. (2018) indicates that improving nurse work environments can enhance retention rates.

IV. Conclusions

The distribution of hospital staff across units may exhibit some inequality. Despite scrutinizing various demographic variables to identify any correlation with stress scores, only the current working unit demonstrated a statistically significant relationship as a modifiable factor. It is observed that the majority of nurses assigned to the general wards at National Hospital Kandy experience mild stress levels, indicative of a productive eustress state.

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AUTHORS

First Author – Dr.Wathsala Dilini Kumari Wijesinghe, MBBS MSc MD (Medical Administration)(UOC), Postgraduate Diploma in Health Care Quality and patient safety (UOC) -Port Health Services,diliniwijesinghe8@gmail.com.

Second Author – Dr.Wijewardena Abeywickrama Nishshanka, MBBS(USJP), MSc (Medical Administration),PGD (Healthcare Quality and Patient Safety),MBA in Health Sector Management (Cardiff Met-UK),MCMA(Sri Lanka) CIEC(Australia),District Base Hospital ,Rikillagaskada,Nuwara Eliya, wnishshanka@yahoo.com

Third Author – Dr,Eresha Fernando, M.B.B.S,MSc (Medical Administration), MBA in Health Sector Management, National Hospital,Kandy,toihami2008@yahoo.com

Correspondence Author – Dr.**Wathsala Dilini Kumari Wijesinghe**, MBBS MSc MD (Medical Administration)(UOC), Postgraduate Diploma in Health Care Quality and patient safety (UOC) -Port Health Services,diliniwijesinghe8@gmail.com.T.P.0094778776569