

Job Satisfaction, Job Stress, Burnout And Coping Strategies Among Eye Care Providers At A Tertiary Care Hospital In Sri Lanka

M.P.Wijeratne¹, M.P.W.Sahabandu², M.R.F.Shifa³, H.D. Nanayakkara⁴, W. L. L. U. C Kumaratilleke⁵

¹⁻⁵Ministry of Health – Sri Lanka



Abstract - Background: Ophthalmic care, a unique field in medical practice needs specialized training and skill development.

Objectives: To assess the level of job satisfaction, job stress, burnout and coping strategies among health care workers at National Eye Hospital Colombo (NEHC).

Methodology: A descriptive cross-sectional study was carried out among health care workers at NEHC by administering a questionnaire from February to March 2020.

Results: Majority of the study group (n=426) was Sinhala (96.7%), married (79.6%) and female (73.7%). Half the respondents were (n=213) satisfied with their job, 23% (n= 98) had job stress, while 0.9% (n= 4) had burnout. Work overload (p<0.001), lack of training in ophthalmic care (p<0.05), unfavorable physical environment (p<0.05) and conflicts with supervisors (p<0.05) were associated with job stress. Good relationship with co-workers (p<0.05) and ability to perform the required task at expected level (p<0.005) were associated with job satisfaction. The Brief-COPE yielded ten factors accounting for 69.3% of the variance. Respondents scored higher on problem solving, followed by social support and religion. Higher level of job satisfaction was significantly (p<0.05) associated with positive coping strategies.

Conclusions: This study demonstrates the importance of coping strategies for health workers' job satisfaction. Implementing a formal system to provide professional support and mentorship, reducing the patients to staff ratio by proper allocation of human resources, training on ophthalmic care, managing the overcrowding, providing adequate eye care equipment & personal protective equipment (designed for eye care) would be the remedial measures for reducing work stress.

Keywords -Job satisfaction, Job stress, Burnout, Healthcare staff, ophthalmic care, coping strategies.

I. INTRODUCTION

Eyesight is one of the most important senses as 80% of perceptions come through the sense of sight [1]. It is crucial to prevent blindness, as eye care interventions dramatically improve the quality of life, contributing to incredible economic and social returns. Eye care is a unique field in medical practice which needs specialized training and skill development. Various equipment which requires special handling skills like slit lamp, auto-refractor, tonometer, retinoscope, ophthalmoscope, retinal cameras, collagen cross linking machines etc. are being used in providing eye care. Most of these vital instruments are very high in monetary value, thereby burdening the user and inventory holder with much responsibility.

National Eye Hospital Colombo (NEHC) is the apex tertiary eye care institution in the country. The hospital drains 1500-2000 out-patients per day from all over the island and works round the clock to give maximum service to the nation. The out-patient department and the clinics are conducted from 7am to 5pm attending to all the routine eye problems, while providing a 24-hour, daily service for the casualty patients. The hospital has modern facilities to provide the top-most eye care for all and exceed the expectations of those being served. The care provided by this institution extends from simple forms of eye infection to severe

degree ophthalmic complications such as retinal and corneal surgeries. Further, NEHC provides corneal drafting facilities through the eye bank. Moreover, being a teaching hospital, it also provides training opportunities for various categories of eye care providers [2].

The increased demand for services from NEHC with limited resources may have overburdened the staff. Apart from this, eye care providers could have a unique set of stressors, as the smallest mistake can cause loss of vision. The possibility of exposing hazards inherent to the field of ophthalmology, like radiation (laser) and infections should also need to be considered. Ophthalmic care providers are at high risk of COVID-19 infection through unprotected contact with eye secretions during routine ophthalmic examinations that involve the use of direct ophthalmoscopy and slit-lamp examinations. These procedures are usually performed in a setting where close doctor-patient contact is inevitable. Considering the above facts, specific measures are required from an ophthalmic point of view to control the COVID-19 outbreak and to protect health care providers [3]. During the recent COVID 19 pandemic the major challenge was the anxiety aroused among the health staff due to uncertainty of several factors related to the behavior of the new virus. The possibility of COVID-19 infected patients presenting with ophthalmologic complications like conjunctivitis and discovery of asymptomatic COVID-19 cases aggravated anxiety among the health staff. Unavailability of PPE especially designed for ophthalmic care was a major concern as slit lamp examination requires the eye care provider to be in very close proximity to the patient. Being the pioneer for eye care in the country, the NEHC has been expected to provide guidance in ophthalmic care for Hospitals Island wide during the COVID-19 pandemic [4].

Workers' health is of utmost importance in our attempt to improve the quality of patient care [5]. It has been noted that there are gaps to be filled while healthcare workers are trying to balance the work and their personal lives. Though it seems like health workers in this field are under much pressure, no research has been carried out in the area of ophthalmic care. Therefore, it is of utmost importance to research the level of stress and explore the associated factors to design tailor-made stress management programmes for eye care providers. Also, it is very important to identify stress coping strategies adopted by the staff to identify their negative and positive stress coping strategies [6]. The study findings are beneficial to raise awareness among the workforce in the eye hospital and to identify early features of stress and burnout, so that measures can be taken to manage or cope with the stress. This will improve their quality of lives, as they will learn to eliminate factors causing stress and how to cope up with stressful situations when causative factors cannot be eliminated.

With this background present study was carried out to assess the level of job satisfaction, job stress, and burnout and to describe the coping strategies among the health staff working in National Eye Hospital, Colombo.

II. METHODS

A descriptive cross-sectional study was carried out among the health care workers at National Eye Hospital Colombo over a period of eight weeks from February to March 2020. The study population consisted of medical officers, nursing officers, paramedical staff, health attendants who have been working in the present station for more than two years period.

Data was collected using a self-administered questionnaire and it was developed by combination of qualitative methods; comprehensive literature review, focus group discussion with each category of health staff and consultative meetings with experts in field to assess the prevalence of stress, burn out and job satisfaction among health staff providing eye care. Translated and validated Sinhala version of Brief COPE questionnaire (Brief COPE-S) was used to describe the coping strategies with author's permission [7].

Ethical Approval for carrying out the research was obtained from the Ethical Review Committee of Sri Lanka Medical Association. Informed written consent was obtained from the eligible participants prior to the data collection. The data entry was done by using Microsoft excel and data processing and analysis was done by using statistical software (SPSS) version 17.

To determine the prevalence of stress and burnout, a scale consisting of 15 statements was used, and a mark ranging from 1 to 5 was given for the selected response. The response "not at all" was given 1 mark, "rarely" was given 2 marks, "sometimes" was given 3 marks, "often" was given 4 marks and "very often" was given 5 marks. The range of the score was from 15 to 75. Scores ranging from 15 to 18 were considered as "no sign of burnout"; 19 –32 "little sign of burnout"; 33-49 "at risk of burnout"; 50-59 "at severe risk of burnout"; 60-75 "at very severe risk of burnout".

Bivariate and logistic regression analyses were carried out to identify correlates of burnout. Individuals who scored less than 19 marks were grouped under "no burnout" category and individuals who scored 19 or higher marks were placed under "burnout"

group for this analysis.

Brief cope questionnaire assessed 14 coping strategies. Each of the 14 coping strategies was indicated by two items. Each statement was graded on a four-point Likert scale: 1 = rarely, 2 = sometimes, 3 = often, 4 = very often. A factor analysis was carried out using Principal Component Analysis to identify main domains of coping strategies adopted by healthcare workers.

III. RESULTS

Out of the 558 staff members whose consent was sought to participate in the study, 426 consented giving a response rate of 76.3%.

Table 1: Distribution of basic socio-demographic characteristics of study group

Socio-demographic characteristics	Number (426)	Percentage
Age		
<20yrs	03	0.7
21-30 yrs.	109	25.6
31-40 yrs.	139	32.6
41-50 yrs.	103	24.2
51-60yrs	72	16.9
Sex		
Male	112	26.3
Female	314	73.7
Marital Status		
Married	339	79.6
Unmarried	79	18.5
Widowed/separated	08	1.9
Ethnicity		
Sinhala	412	96.7
Tamil	11	2.6
Muslim	03	0.7

Most of the study participants were Sinhala (96.7%), married (79.6%), female (73.7%) who were in 31-40 years age group (64%) (Table 1).

Table 2: Distribution of study group by staff category and service period

Socio demographic characteristic	Number (426)	Percentage
Staff Category		
Nursing Officers	121	28.4
Health Attendants	110	25.8
Para Medical Staff	101	23.7
Medical Officers	94	22.0
Service Period		
2-3 yrs.	140	32.8
3-5 yrs.	78	18.3
5-10 yrs.	104	24.4
10-15 yrs	13	3.1
>15 yrs	91	21.4

Among the study group, most of the participants were diploma holders (31.7%), nursing category (28.4%) and having 2-3year service experience at present station (32.8%).

Table 3: Distribution of study sample by their stress level

Total Score	Number	Percentage
No burnout	328	76.9
At risk of burnout	94	22.0
Burnout	04	0.9
Total	426	99.8

As shown in Table 3, 0.9% of the participants had burnout while 22% were under the risk of getting burnout.

When analyzing the overall job stress of 23% category wise, it was 23.9 %(n=29) among nursing officers, 20% (n=22) among health attendants, 22.7 %(n=23) among para-medical staff and 25.5% (n=24) among medical officers.

Out of the 426 staff members, half the respondents were satisfied with their job and 65.5% believed that their job function is matching with their expectation. Furthermore, 318 (74.6%) participants were satisfied with their role in eye care. Among the participants, 259(62%) believed their workload is heavy, 243 (57%) complained about lack of training for ophthalmic care, 182 (42.7%) believed their job is monotonous, 173(40.6%) pointed out lack of resources to provide effective patient care and 119 (27.9%) participants were not satisfied with their salary. Another 89 (21%) were worried about the associated legal implications, 87 (20%) experienced lack of guidance by the seniors and 71(16.7%) experienced deficiencies in the administrative system.

Among the study group, 215 (50%) believed that opportunity of getting a better job in case of leaving the present job is difficult. Another 139 (32.6%) participants had the opinion to select the same job if they ever get an opportunity to select their job for the second time, 131 (30.8%) of participants said that they would recommend the same job for their friend while only 59 (13.8%) were happy to recommend it for their own child.

Table 4: Physical environment of the workplace for health staff

Disturbing Factor of work environment	Number	Percentage
Noisy environment	145	34.0
Less light	111	26.1
Too hot environment	152	37.5
Poor ventilation	194	45.5
Lack of equipment for eye care	246	57.7
Lack of Personal Protective Equipment (PPE)	205	48.1
Overcrowded	191	44.8
Hazard of mosquitoes/ Insects	374	87.8
Bad odor	157	36.9
Unfavorable physical environment (Overall)	213	50.0

As shown in the Table 4 the health staff had concerns about physical environment of the workplace. Hazard of mosquitoes/insects, poor air quality, lack of properly functioning medical equipment for eye care (slit lamps, ophthalmoscope etc.), lack of PPE designed for eye care, poor ventilation and overcrowding were some of the disturbing factors affecting the eye care providers. Half the respondents, 213 (50%) were not satisfied with the physical environment of their workplace.

According to the findings, 109 (25.5%) workers had had conflicts with co-workers, 107(25%) had experienced adverse reactions of seniors in pressure situations and 101 (23.7%) had been exposed to some form of violence at workplace. Out of the 101 participants who had been subjected to violence, a majority of 98 (97%) had been subjected to psychological abuse and 82 (81%) identified their supervisor as the perpetrator.

Perceived work overload ($p < 0.001$), lack of special training for ophthalmic care ($p < 0.05$), unfavorable physical environment ($p < 0.05$) and conflicts with supervisors ($p < 0.05$) were associated with job stress. Perceived good relationship with co-workers ($p < 0.05$) and ability to perform the required task at expected level ($p < 0.005$) were significantly associated with job satisfaction.

Coping strategies among the health staff in NEHC

As shown in the Table 5, factor analysis of Brief COPE yielded ten factors accounting for 69.3% of the variance. The health staff scored higher on problem solving followed by searching support, followed by religion, avoidance and withdrawal. Coping strategies adopted by the health staff were found to be including all five broad dimensions of coping: self-soothing, distraction, opposite action, emotional awareness, and mindfulness. Problem solving and changing perspective was identified as a valid approach to cope the stress. It was observed that they used to adopt some of the ineffective ways of coping such as avoidance, withdrawal, substance use & self-blame.

Once the factors were extracted, the score of each factor was calculated in the whole sample.

Table 5: Coping strategies scores according to the ten factors extracted from the brief –cope (N=426)

Factor	Mean ± SD
Problem Solving	11.34± 3.42
Searching Support	10.71 ± 2.70
Religion	6.00± 1.63
Avoidance	6.28 ± 2.37
Withdrawal	3.46 ± 1.64
Substance use	2.89 ± 1.48
Acceptance	7.79± 2.17
Conversion	5.73 ± 1.42
Changing perspective	8.91 ± 2.25
Self-Blame	4.25 ± 1.59

Higher level of job satisfaction was significantly ($p<0.05$) associated with positive coping strategies.

IV. DISCUSSION

Despite ophthalmic care provided at local hospitals, the patients from all over the country visit NEHC seeking quality care. As a result, NEHC drains around 2500 to 3000 patients daily for outpatient department, casualty & emergency department, clinic care and for routine surgeries [2]. Catering this high demand with limited resources available in the hospital has become a challenge in providing optimal care. As health staff works at their maximum capacity to cater the patients’ needs, there may be a tendency for them to undergo stress and burnout.

In careful search of literature, similar studies conducted in settings which provide only ophthalmic care were not identified. However, there were several studies conducted on job stress, burnout, and associated factors among different categories of health care workers in several other settings.

The prevalence of psychological distress among a group of nursing officers (n=525) was identified as 46.6% according to a study conducted in Galle. The majority were affected by work overload (85%, n=436) followed by dissatisfaction of work (63.5%, n=326) and boredom at work (62%, n=318). Dissatisfaction of the working environment ($p<0.01$), boredom at work ($p<0.001$), and conflicts with colleagues ($p<0.02$) were some of the factors associated with psychological distress among these nursing officers [8]. Another study conducted among nursing officers (n=345) in psychiatric inpatient facilities, Colombo identified prevalence of High Job Strain as 37.2% and working more than 48 hours weekly (OR=1.71), lack of assistance (OR=4.56), inadequate facilities (OR=1.62) and poor work recognition (OR=2.89) as stressors [9]. Similar to the present study above studies have identified a considerable level of stress among nursing officers and certain common causative factors such as work overload, boredom at work and unfavorable physical environment etc. However, these findings are not directly comparable as both above mentioned studies have been carried out only among nursing officers and their role is quite different when compared to the provision of eye care at NEHC. Further to this, eye care providers had a unique set of stressors, like lack of special training for ophthalmic care, lack of properly functioning medical equipment for eye care and lack of PPE especially designed for eye care.

A study conducted to identify the causes of stress encountered by medical officers in Sri Lanka found high workload, lack of resources to provide effective patient care, association with legal implications, adverse reactions of senior pressure situations, interpersonal conflicts and deficiencies in the administrative system as the main causative agents for stress among this group [10]. Similar findings were demonstrated by present study among eye care providers at NEHC as there could be several common stressors for health staff in any category in any setting.

According to the study by Wijeratne, et.al, (2018) despite considerable work-related stress experienced by doctors, access to

help was limited during practice. Deficiencies in the psychological support provided by the healthcare system, inconsistencies in senior support, ignorance in rules and regulations and unhelpful legislation appeared to be contributory. However, several informal means were employed by medical officers to relieve their work stress. The main coping strategies were discussions with seniors and colleagues, teamwork and religious practices [11].

Association of higher level of job satisfaction with positive coping strategies is an important finding of present study. The health staff in NEHC scored the highest in problem solving and it was followed by searching support, religion, avoidance and withdrawal in decreasing order. Problem solving and changing perspective were identified as valid approaches to cope with stress. It was observed that they used to adopt some of the ineffective ways of coping such as avoidance, withdrawal, substance use & self-blame [6]. Therefore, the health staff should be enlightened on positive stress coping strategies. According to Ellawella et.al, More than 40% nurses seldom practiced problem focused coping strategies [8].

Since this is a tertiary care hospital-based study, the inability to generalize these findings on other settings providing eye care at small scale has become its major limitation.

V. CONCLUSIONS

Half of the eye care providers were satisfied with their job, 23% had job stress while 0.9% had burnout. This study provides evidence for demonstrating the importance of coping strategies on health workers' job satisfaction.

Implementing a formal system of providing professional support and mentorship, reducing the ratio of patients to staff by proper allocation of human resources, training the staff on ophthalmic care, managing the overcrowding, providing suitable personal protective equipment for eye care, providing adequate equipment for eye care would be the remedial measures for reducing work stress.

ACKNOWLEDGMENT

We acknowledge for all the study participants who volunteered to participate in research and for their assistance extended throughout the research study.

REFERENCES

- [1] Forrester JV, Dick AD, McMenamin PG, Lee WR. *The Eye Basic Science in Practice*. W.B. Saunders; 2nd ed.2002.
- [2] Annual Report National Eye Hospital Sri Lanka, Ministry of Health Nutrition and Indigenous Medicine; 2019
- [3] Hani BAL Balawi. COVID-19: Precautionary Guidelines for Ophthalmologists. *Cureus*2020; 12:6.
- [4] Wijeratne MP, Kumaratilake WLLUC. Facing the challenge of providing eye care at the National Eye Hospital Colombo during the COVID-19 outbreak in Sri Lanka. *Journal of the College of Community Physicians*2020; **26**:222-9.
- [5] Alli BO. *Fundamental principles of occupational health and safety*; International Labor Office. Geneva;2nd ed .2008.
- [6] Atkinson RLARC, Smith EE, Bem DJ. *Stress and Coping, In: An Introduction to psychology*.10th ed.1990.
- [7] Pathiraja PMRBI. Burnout, coping strategies and correlates of burnout among Public Health Midwives working in the Western Province of Sri Lanka., MD (Community Medicine), University of Colombo, Sri Lanka, 2011.
- [8] Ellawela YG, Fonseka P. Psychological distress, associated factors and coping strategies among female student nurses in the Nurses' Training School Galle. *Journal of the College of Community Physicians* 2011; **16**:23-29
- [9] Gunasekera HDJJ, Suraweera IK. Prevalence and correlates of work stress among Nursing Officers working in psychiatric in ward facilities in Colombo District. *Journal of the College of Community Physicians* 2016; **22**: 22.
- [10] Seenigama SO, Wijeratne NG, Chandratilake M, Karunarathne WCD, Fernando MAM. Causes and outcomes of stress encountered by doctors in Sri Lanka. *Ceylon Med J* 2018; **63**:124.
- [11] Wijeratne NG, Seenigama SO, Chandratilake M, Karunarathne WCD, Fernando MAM. Coping strategies adopted by Sri Lankan doctors to deal with stress. *Ceylon Med J* 2018; **63**:123.