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## PSYCHOSOCIAL (WORK-RELATED) RISK FACTORS CONTRIBUTING TO OCCUPATIONAL STRESS AMONG HEALTHCARE WORKERS (HCWs)

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### Abstract

A healthcare worker provides care and treats the sick and ailing either directly as doctors and nurses or indirectly as helpers. Healthcare workers face numerous health and safety challenges in their workplace. This paper highlights the occupational stressors negatively impacting the health and wellbeing of healthcare workers.

An exploratory study was conducted among 120 healthcare workers from 22 multispecialty private hospitals, and clinics to recognize the work-related psychosocial risk factors that contribute to occupational stress among healthcare workers (HCWs). Using Copenhagen Psychosocial Questionnaire (COPSOQ III) and Stress Prevention at work checklist by ILO, a self-constructed and validated questionnaire was developed. Major findings of our research were that most healthcare workers had poor work-life balance; rigidity contributed to being the major psychosocial stressors along with dealing with emergencies, insensitive patients'/ family members, and long working hours.

Preventive strategies to mitigate the onset of occupational stress are recommended. Long-term support by top-level management in including job enrichment, job rotation, group-problem solving, and human relations training will not only lead to a reduction in the psychosocial stresses that the healthcare workers feel but also promote job autonomy, increase recognition at the workplace and job control.

**Keywords:** Healthcare Workers, Long Working Hours, Occupational Health, Psychosocial Stress, Work-Life Balance.

### I. Introduction

Healthcare workers (HCWs) include an array of professions who provide some type of healthcare service, like nurse practitioners, physicians and their assistants, dentists, pharmacists, physical and behaviour therapists, as well as allied health professionals like medical laboratory scientists, phlebotomists, dieticians, and social workers. They work mainly in hospitals, healthcare centres and, other service delivery points, but also can be available in academic training, research, and administration (Health Professional, n.d.).

India has a wide network of carefully planned healthcare systems, both in rural as well as urban areas providing both private and public healthcare facilities. The state government is responsible for providing healthcare services and health education, while the central government offers administrative and technical assistance. But very little attention has been given to the well-being of healthcare workers. While serving the nation, they have lost sight of their health. That's when we wonder, how safe are the ones that keep us safe?

Stress is often caused by a bad "person-environment fit". Ergonomics deals with this interaction between workers, working environment, and equipment causing physiological and biomechanical loading on the body. It is observed that job autonomy and security, poor work-life balance, irregular working hours, quantitative and qualitative overload, physical work conditions, and ergonomic factors often act as negative stressors affecting their working efficiency and quality of patient care.

The increasing recovery rates of patients always remain the focal point but what is neglected is the condition of healthcare workers who are behind this success. Hence, the process must be put in place that allows for diligent evaluation of all healthcare workers with ready assistance. The productivity of the doctors, being the most decisive factor as far as the success of the organization is concerned, in turn, is dependent on their psychosocial wellbeing. In the age of a highly dynamic and competitive world, the human race is exposed to all kinds of stressors, the growing importance of interventional strategies is felt more at the hospital level. So, let's heal the healer!

A research study that specialize in "staff working in geriatric psychiatry in France being exposed to the violence of patients' behavioural disorders and aggressiveness of patients made vulnerable by dementia" found that burnout scores were lower in geriatric and long stay units than in psycho-geriatrics or retirement homes, and scored more heavily in compassion fatigue, were more



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vulnerable to harassment, were in an older age group, and had greater seniority. As opposed to this, they scored lower on compassion satisfaction (Thomas, 2014).

Another study “the influencing factors of Psychological Distress (PD) among healthcare professionals in Gondar city, Ethiopia” stated that women are vulnerable to psychological distress because they may perceive discrimination at work, encounter violence, and use emotionally oriented coping strategies proving socio-demographic factors (sex) and psychosocial job characteristics (job demand and job control) to be significantly influencing psychological distress (PD) among HCWs (Kabito, 2020).

Assessing the psychosocial hazards and the corresponding risks among healthcare workers in a tertiary health facility in Rivers State, Nigeria. Work overload, it was found that the highest proportion of all the psychosocial hazards in the theatre, radiology, clinic, ward, and laboratory. Other psychosocial hazards were poor interpersonal relationships, job dissatisfaction and assault from patients’ relatives (C.U. Okefor & F.E. Alamina, 2018).

A brief study titled, “Work-Related Psychosocial Hazards Among Emergency Medical Responders (EMRs)” showed that EMR suffered from different acute job stressors, of which the most severe was dealing with traumatic events (88.57%), followed by handling serious accidents (87.14%) (Khashaba, 2014).

A research article outlined work-related stress as a major contributing factor to growing job dissatisfaction among doctors in Indira Gandhi Medical College & Hospital, Shimla (Himachal Pradesh) India. Major findings of the research identified Role overload (40% variance), Self-rule distance (9% variance), Role isolation (6% variance), Inter-role distance (5% variance), Role stagnation (3% variance), Role expectation conflict (3% variance), Role ambiguity (3% variance) and Role Inadequacy (3% variance) as factors that caused role stress among doctors working in IGMC. It was also found that there was no significant difference between the strain levels among the male and the female doctors except in cases of – Role Inadequacy and Inter-role distance (Dasgupta, 2009).

## 2.Objectives of the Study

The specific objectives of the study are to (i) gain knowledge of the demographic profile of the HCWs; (ii) recognize the work-related psychosocial risk factors that contribute to occupational stress among the HCWs; (iii) recommend effective ergonomic intervention and preventive strategies to mitigate the onset of occupational stress among HCWs.

## 3.Methodology

An exploratory study was conducted among 120 healthcare workers (aged 26 - 65 years) from 22 multispecialty private hospitals, and clinics through the convenience sampling method. Both male and female healthcare workers belonging to all caste, races, ethnicity, or religion and having more than one year of relevant work experience were included in the study. HCWs who were not directly involved in patient care or refused to give informed consent were excluded.

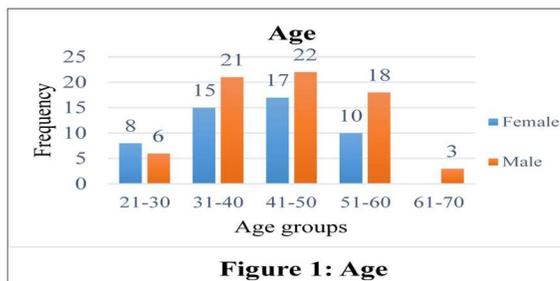
The tools utilized for data collection included:

1. Self-constructed and validated questionnaire- The questionnaire was divided into 3 parts:
  - Part A collected information on the demographic profile of the HCWs
  - Part B gathered work-related information like Nature of employment, Job designation, working method, work timings, shift types, rest breaks, sleep duration, and quality of sleep.
  - Part C contained questions regarding psychosocial factors and work-related stressors
2. Copenhagen Psychosocial Questionnaire (COPSOQ III)- An instrument for the assessment of psychosocial conditions and health promotion at workplaces which is designed at the Danish National Research Centre for the Working Environment. It provides standards of risk assessment for workers regardless of whether they work in poor working conditions or, in the more privileged occupational sectors (Kristensen, 2003).
3. Stress Prevention at work checklist by ILO- This checklist includes easy-to-apply 50 checkpoints for identifying stressors in working life and mitigating their harmful effects. Each describes an action, indicates why it is necessary and how to carry it out, and provides further hints and points to remember which would help tackle those stressors (Office, 2012).

## 4.Results

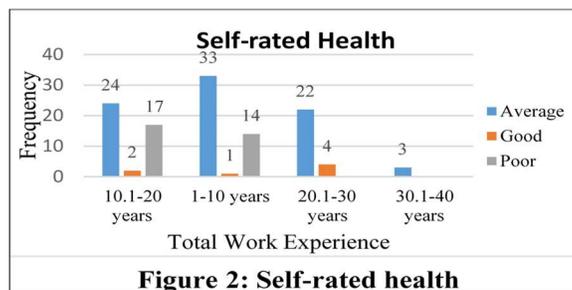
### 4.1Demographic Profile of Sample

The study involved HCWs which consisted of 50(41.6%) female and 70(58.3%) male healthcare workers out of which 22(18.3%) male and 17(14.1%) females lie between 41-50 years of age [Figure 1]



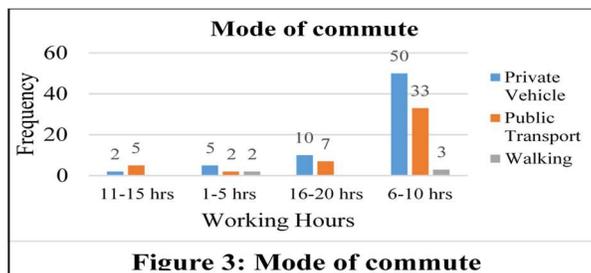
### Self-rated Health

82(68.33%) of Healthcare Workers reported their self-rated health as average. 31(25.8%) of Healthcare Workers felt their health was poor [Figure 2]



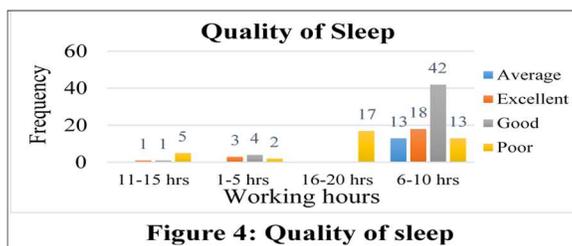
### Mode of commute

It was observed that 50(41.6%) of HCWs travel using private vehicles. They usually work 6-10 hours a day. 33(27.5%) with working hours 6-10 hours' travel using public transport. 3(2.5%) with working hours 6-10 hours come by walking [Figure 3]



### Quality of sleep

The majority of HCWs, 42(35%) working for 6-10 hours have a good quality of sleep; whereas poor quality of sleep was observed among HCWs working for more than 10 hours, 17(14%) [figure 4]



## 4.2 Psychosocial Stress Among Healthcare Workers (HCWs)

### Most stressful part of the day

The majority of HCWs 43(36%) find mornings to be the most stressful followed by evenings 40(33%). 41-50 age group has the highest percent for evenings as the most stressful part of the day. Very few find afternoons and midnights to be stressful [Figure 5]

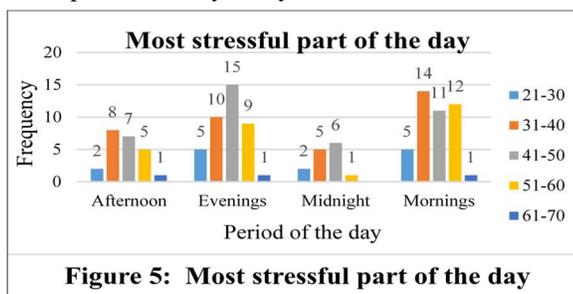


Figure 5: Most stressful part of the day

### High-stress factors

Long working hours 22(18%) proved to be the highest stress factor followed by workload 18(15%) and dealing with offensive patients 17(14%) [Figure 6]

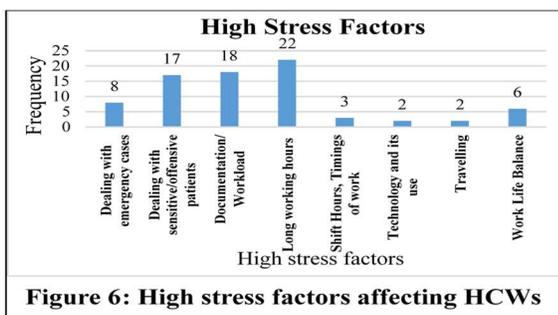


Figure 6: High stress factors affecting HCWs

### Offensive behavior of patients

74(62%) of the female and 61(51%) of the male HCWs face offensive patients at work [Figure 7]

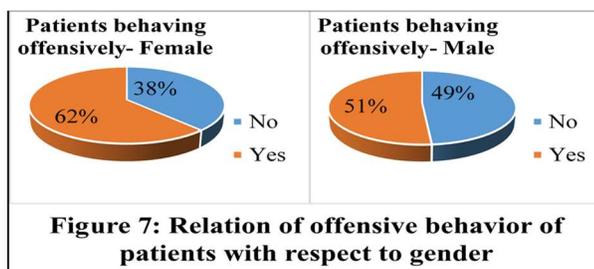


Figure 7: Relation of offensive behavior of patients with respect to gender

## Discussion

70(58.3%) Healthcare workers included in the study were male and belonged to the age group of 41-50 years, 43.2 years is the average age of the sample, 34(28.3%) of which were M.B.B.S. qualified [Figure 1]. 31(25.8%) of the HCWs reported to have poor self-rated health, experienced aches, and pains or were stressed due to work demands or job roles [Figure 2].

72(60%) of healthcare workers had fixed working hours, that is, they had to work for a certain fixed number of hours every day assigned by the employer. 48(40%) out of which reported getting no rest breaks. Rotational shift workers are those who do not have fixed working hours and are assigned a shift or a time slot based on requirement which gets rotated cyclically. Only 41(34%) of the rotational shift workers reported getting rest breaks while the other 80(66%) were working continuously for their entire shift. Due to this, it was seen that their health was compromised and they experienced psychosocial stress, fatigue, and burnout. 47(39%) Healthcare workers using public transport for commuting faced stress factors due to long waiting times and delays [Figure 3]. 26(21.6%) of the HCWs have a poor quality of sleep as they worked for long periods (around 20 hours) contributed by attending emergencies and providing continuous patient care. 37(30.8%) of healthcare workers had only 2-5 hours of sleep which deeply affected their Circadian Rhythm; which is the biological sleep-wake cycle of the body [Figure 4]. 8-12 hours of work commitment at



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length, especially for nurses, has seemed to be physically and emotionally exhausting leading to a major cause of sleep deprivation (Thomas, 2014).

Rigidity tremendously affects healthcare workers as they are not allowed to work in flexibility and implement variation in their working methods leading to fatigue and frustration. Work-life balance involves managing time spent at work and outside of work i.e., managing relationships, family responsibilities, and engaging in interests and hobbies; all while juggling their professional responsibilities. Approximately 98(82%) of healthcare workers agreed that their private life was affected due to work, out of which General Physician 60(50%) were hit the most, mainly during the pandemic. Insufficient staff, high workload, and family demands, altogether, lead to burnout among them. During the pandemic, keeping their fears aside to serve the patient, in itself was a challenge and a stress factor. Only 22(18%) disagreed with their private life being affected, either due to them being self-employed or not being a part of the frontline workers. This was because they claimed that they had less rigidity, in terms of, an authoritative figure and more autonomy in work timings and methods. They could have adequate rest breaks and also control the number of patients they would attend in a day, leading to a good work-life balance and lower stress.

Mornings 43(36%) were found to be the most stressful part of the day for healthcare workers followed by 40(33%) evenings [Figure 5]. This is due to major surgeries usually scheduled during the day. A few healthcare workers reported to have attended more than 100 patients a day, workload being a high-stress factor for them. The highest stress occurred while dealing with emergency 62(51.7%), when the patients and their family members panic, which is justifiable but causes chaos, or other unforeseen situation like delay in admitting the patient, delay in ambulance arrival, or improper equipment/machinery to operate. 42(35%) faced stress due to long hours of work, especially in the age group 31-40 years [Figure 6]. Healthcare workers in the age group 51-60 years experienced the highest stress as compared to other age groups. Aging is associated with diminished physical health and that was a major cause of concern especially during the pandemic. With immunity being low and having front-end exposure to global crises physically and mentally impacted healthcare workers.

74(62%) of the female and 61(51%) of male healthcare workers proclaimed to have faced offensive patients at work that is behaving aggressively or rude; creating a hostile environment [Figure 7]. 87(72.5%) workers claimed that they hadn't taken any stress-related leave in the past year as "their profession was their passion", they said. This attitude creates a positive impact and has proved to be an optimistic approach towards tackling challenges proactively and enjoying them.

### Recommendations

Ergonomics (Human Factors) aims to study human abilities and limitations and applying this knowledge to improve man's interaction with the machine and the environment. It involves modifying the design of the product or the workstation setting to fit the worker and not the other way around (Bridger, 2003). Three levels of controls can be implemented to reduce the psychosocial hazards faced by HCWs; they are:

#### Engineering Controls

- Redesigning or re-organizing the workplace using psychological matrices to induce positivity
- Using physical barriers to prevent violence in areas that are not open to public
- Using ergonomically designed tools and equipment to prevent physical and psychological stress

#### Administrative Controls

- Providing employee training regarding best practices and work methods
- Review and revise procedures that produce workload stress
- Provide pick and drop services and other welfare facilities in the workplace
- Introducing job rotation

#### Personal Controls

Personal stress relief techniques can be used to de-stress (Glassheim, 2016), such as:

- Breathing and relaxation exercises
- Visualization
- Improved personal habits: rest, healthy nutrition, and achievement of a work-life balance
- Avoidance of negative coping mechanisms (self-medication, illegal drugs, alcohol, etcetera)
- Recognizing the stressors and avoiding them



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## Conclusion

This study explored the prevalence of work-related psychosocial stress among healthcare workers. The results reported that rigidity contributed to being one of the major psychosocial stressors among HCWs. Most of them had poor work-life balance and managing relationships was a stressor. Dealing with emergencies, insensitive patients/family members and long working hours proved to be high-stress factors among them and a greater number of female HCWs experienced offensive patients at work as compared to male HCWs.

Ergonomic solutions were suggested to help HCWs tackle the psychosocial stressors and ultimately provide good patient care. Skill development training, continuing education, and established clinical career ladders would increase satisfaction among HCWs. Long-term support by top-level management in including job enrichment, job rotation, group-problem solving, and human relations training will not only lead to a reduction in the psychosocial stresses that the healthcare workers feel but also promote job autonomy, increase recognition at the workplace and job control.

## Scope of the study

This research creates awareness about the psychosocial (job autonomy, job demands, job security, job recognition, etc.) aspects of the work environment that prove as significant factors contributing to negative stressors and burnouts among Healthcare Workers (HCWs). Advanced techniques can be studied and innovative technology can be introduced to make work processes leaner. Various ergonomic software could be installed in the organization to keep a check of the physical working environment and their working postures that could induce stress and strain. The researcher plans to take this study ahead by using Body mapping, Flexi curve, and such instruments to analyse the postures further in-depth and perform a self-designed stress audit in organizations to know the root cause of occupational stress and strain among healthcare workers.

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