Occupational Health Hazards among Women Workers in Healthcare Industry: An Analysis

S. Jayaselvi
Assistant Professor, Department of Management Studies
Amrita College of Engineering and Technology, Nagercoil, Tamil Nadu, India

Abstract
A healthy population is an asset for an economy, while the ill and aged is a burden. A healthy workforce is more productive as it can effort for a longer duration. When a worker is incapable of working due to serious health problems, such as disability, then he/she is also unable to assist the nation in raising the standard of living. The number of workers employed in the health care industry was identified in each category based on the number of units, and total workers have been chosen randomly. The study consists of 120 samples that were collected from various healthcare industrial women workers at Thoothukudi in Tamilnadu. The Frequency Table, Cross Tabulation, and the Chi-Square test used to analyze the data.

The current world scenario shows how healthcare workers are exposing to various threats or risks in the healthcare industry. Occupational health hazards emerge due to various factors such as communicable diseases, pestilence, psychological stress like work-related pressure in the workplace, work shifts, and so on. Healthcare workers face a huge challenge to overcome health hazards and ensure safety. The working women’s occupational health problems in the healthcare sector are a matter of urgent concern. There is also a definite need to develop a database on the occupational health of women in developing countries to promote their health status, and it is essential to create awareness among the health personnel in the industry. Health status influence the occupational health hazards among women workers in the health care industry. The study is focusing the occupational health hazards and the safety measures provided to the healthcare women personnel.

Keywords: Health, Health status, Occupational health hazards, women workers, safety measures

Introduction
A healthy population is an asset for an economy, while the ill and aged is a burden. A healthy workforce is more productive as it can effort for a longer duration. When a worker is incapable of working due to serious health problems, such as disability, then he/she is also unable to assist the nation in raising the standard of living. The current world scenario shows how healthcare workers are exposing to various threats or risks in the healthcare industry. Occupational health hazards emerge due to various factors such as communicable diseases, pestilence, psychological stress like work-related pressure in the workplace, work shifts, and so on. Healthcare workers face a huge challenge to overcome health hazards and ensure safety. The working women’s occupational health problems in the healthcare sector are a matter of urgent concern. There is also a definite need to develop a database on the occupational health of women in developing countries to promote their health status, and it is essential to create awareness among the health personnel in the industry. Health status is one of the influencing factors in the occupational health hazards among the women workers in the health care industry.
Women Workers in India
with a view to upliftment of women improves the socio-economic, political and legal strength of the women, to ensure equal right to women, and to make them confident enough to claim their rights such as freely live their life with a sense of self-worth, respect, and dignity and have complete control of their life, to make their own choices and decisions. To define financial and economic choices, they get an equal chance for education, and also they get equal employment opportunities without any gender bias, and they get safe and comfortable working women. The growing rates of women contributing to the workforce have led to an equal disbursement of hours worked across the regions of the world.

Health Care Industry in India
Today, in India, the healthcare sector is leading sector which generates the revenue and providing employment opportunities to the people directly and indirectly. This sector holds the fifth-largest employer position among all sectors, which offers direct employment in the various departments to nearly five million citizens in India. The private sector is likely to contribute to tremendous growth. Concentrating on the quality of service, particularly with the increasing demand for tertiary and quaternary care, the industry needed specialty and highly skilled resources. As a result, a large increase in demand, for nurses, in particular, is anticipated. In the modern era, the healthcare industry scenario is rapidly altering all over the sphere. Today Indian health care industry is not the only service driven but also business-driven and all sorts of service providers to be part of this massive multi-core business, growing at the rate of 13 percent annually.

Healthcare workers do not have the immunity their patients come first. They are often expected to sacrifice their well-being for the sake of their patients as they are dedicated and sacrifices their life. Indeed health-protecting health-care workers have the added benefit to contribute to quality patient care and health system strengthening.

Occupational Health Hazards
According to the World Health Organization (WHO), Occupational Health is defined as a multidisciplinary activity aimed at the protection and promotion of the health of workers, by preventing and controlling occupational hazards and accidents and by eliminating the occupational factors and conditions hazardous to health and safety at work. The development and promotion of healthy and safe work, work environments, and work organizations. Enrichment of the physical, mental, and social wellbeing of the workers and support for the development and maintenance of their working capacity, as well as professional and social development at work. Enabling workers to conduct socially and economically productive lives and to contribute positively to their sustainable development.

Occupational Health Hazards for Health Care Workers
India has a healthcare workforce of over 4.3 million, serving a population of over 1.2 billion. HealthCare Workers regarding their exposure to workplace hazards have the potential to create awareness in recognizing occupational health hazards and to regulate and set standards to promote workplace safety and health. They are involved in health care provision at various levels ranging from tertiary to primary health services and community-based outreach services. Health Care Workers who may be exposed to a variety of workplace hazards including biological, chemical, physical, radiological, safety, ergonomic, and psychosocial hazards. The occupational-related diseases, including tuberculosis, hepatitis C virus, hepatitis B virus, human immunodeficiency virus, occupational asthma, and contact dermatitis, finding an association between occupational hazards and disease prevalence. Hazard
recognition among healthcare workers is essential, and a major impediment to risk communication and risk management efforts. Healthcare worker’s work environment is considered to be one of the most hazardous occupational settings. Ergonomic related injuries pose a significant health risk to workers, and yet it is the most prevalent occupational injury in the healthcare industry.

**Awareness of Occupational Safety and Health**

Awareness of occupational safety and health play an important role in the prevention of injuries and diseases in the workplace. The government of India implemented various schemes that have been implemented to create awareness and knowledge of occupational health hazards in the workplace of healthcare workers. Occupational hazards are risks to people that usually arise out of their employment. “The Environmental and occupational health issues in hospitals,” an article by Bert Sadleir, states that hospitals are large, organizationally complex, system-driven institutions, employing a large number of workers from different professional streams.

**Statement of Problem**

In India, occupational health is more than simply a health issue, which includes child labor, poor industrial legislation, the vast informal sector, less attention to industrial hygiene, and poor surveillance data. Statistics for the overall incidence and prevalence of occupational disease and injuries for the country is inadequate. While India experiences an economic transition, the occupational research approach should balance between understanding the modern industrial exposures, and health risks of traditional sectors like agriculture and plantations. Lack of education, unawareness of hazards in one’s occupation, general backwardness in sanitation, poor nutrition, and climatic proneness to epidemics aggravate worker’s health hazards in the work environment. Occupational health not only deals with work-related disorders or diseases, but it also encompasses all factors that affect workers’ health. With changing scenarios, there is a need to understand the risk factors of modern occupational hazards. India urgently requires modern occupational health safety (OHS) legislation with adequate enforcement machinery and the establishment of centers of excellence in occupational medicine to catch up with the rest of the world. So occupational health hazards are the important indicators used in evaluating the standard of living of the health care industry. Very few studies are available for occupational health hazards in healthcare workers. But no study is focusing on the same issue among women in Thoothukudi. Therefore, the researcher found the research gap and tried to fill it by pursuing the study.

**Scope of the Study**

This study would give an overview of the health and safety measures existing in the healthcare industry Thoothukudi district. Since health and safety are two central elements essential for improving the productivity of an organization, a study on the existing health and safety measures would help the organization to perform better. This study would throw light on the perception of the workers regarding health and safety. The healthcare industry can identify the areas where it can be proved. To improve the performance of the workers in the Healthcare industry, the study would help to analyze the satisfaction level of the workers towards health and safety measures and suggest provisions to improve health and safety.

**Review of Literature**

Landsbergis (1988) studied occupational stress among health care workers by using the job Demands-control model. The results support the hypothesis that reported job strain (job dissatisfaction, depression, and psychosomatic symptoms) and burnout are significantly higher in jobs that combine high workload demands and low decision latitude. Other job characteristics, including; job insecurity, physical exertion, social support, and hazard exposure were found associated with strains and burnout.

Nelson and Sutton (1990) examined the relationship between chronic work stressors, coping techniques, distress symptoms, and work performance among organizational newcomers. The results showed that the choice of coping technique failed to account for significant variance in distress symptoms. However, distress symptoms reported
before beginning a new job accounted for 32% of the variance in distress symptoms reported after nine months from beginning the job, confirming a possible dispositional influence on symptom reporting.

Chen and Spector (1991) studied the extent to which negative affectivity (NA) inflated the correlation between chronic job stressors and strains. Results revealed that NA was found to account for large proportions of shared variance between stressors and physical strains (as indicated by absence, doctor visit, and physical symptoms). But it did not account for much of the variance shared by stressors and affective strains (Job satisfaction, anger, and feeling of stress and frustration). Significant correlations were also found between NA and both stressors and strains.

Chang et al. (2006) examined the relationships between workplace stressors, coping methods, demographic characteristics, and health among Australian nurses. Significant correlations were found between stressors and physical and mental health. Age is the only significant predictor of physical health. The best coping predictors of mental health were escape-avoidance, distancing, and self-control. Other significant predictors of mental health supported available at the workplace, the number of years worked in the unit, and workload. Mental health scores were higher for nurses who have been working more years in the unit and are using distancing as a way of coping. Mental health scores were lower for nurses who used escape-avoidance, lacked workplace support, had a high workload, and used self-control coping.

**Hypothesis**

There is a strong relationship between occupational health hazards and health status among the sample women workers in the health care industries.

**Objectives**

The Objectives of the study are

To analyze the occupational health hazards and health status among the sample women workers in the health care industries.

**Methodology**

To achieve the above objectives, an empirical inquiry is necessary. However, for an individual researcher, due to time and resource constraints, the focused area had to be restricted. So, it was decided to confine the study area to Thoothukudi district as it has all the necessary characteristics for conducting a study of this kind. However, many industries are existing in Thoothukudi district. Data required for the study, collected through the interview schedule, which will administer among the women workers in Thoothukudi. The number of workers employed in the health care industry will be identified in each category based on the number of units, and total workers have chosen randomly.

a) **Sampling Design**

The study consists of 120 samples that were collected from various workers in unorganized at Thoothukudi in Tamilnadu. The random sampling method was used to collect the above-said data.

b) **Tools Analyzed**

In this study, the Frequency Table, Cross Tabulation, and the Chi-Square test used to analyze the data. These tools bring the real picture of the women workers’ health issues in the work Area.

**Health Status**

Health is very important in the development of the economy. Health is a socio-physical good and a major determinant of human resources development. Social sectors such as education and health are vital for sustaining a higher rate of overall economic growth.

| Overall Health Status | Number | Percentage |
|-----------------------|--------|------------|
| Very poor             | 12     | 10.00      |
| Poor                  | 20     | 16.67      |
| Average               | 45     | 37.50      |
| Good                  | 29     | 24.17      |
| Very good             | 14     | 11.66      |
| **Total**             | **120**| **100**    |

**Sources:** Primary data

The five points scale is used to measure health status. The table expresses that the majority of 45 respondents (37.5 percent) states that they have an average of overall health status. 24.17 percent
of them stated that they had good health status. 12 respondents stated overall health status was very poor. Among the women, workers were suffered from the disease, especially chronic in nature.

| Occupational Health Hazards | Number | Percentage |
|-----------------------------|--------|------------|
| Yes                         | 71     | 59.17      |
| No                          | 49     | 40.83      |
| Total                       | 120    | 100        |

**Table 2: Occupational Health Hazards**

The majority of the respondents (59.17 percent) affected by occupational health hazards in their health care industry. And 40.83 percent of them stated that they did not affect any occupational health hazards.

### Occupational Health Disease Status

Healthcare workers are exposed to many hazards that can adversely affect their health and well-being. Long hours, changing shifts, physically demanding tasks, violence, and exposures to infectious diseases, and harmful chemicals are examples of hazards that put these workers at risk for illness and injury.

| Occupational Health Disease Status | Number | Percentage |
|------------------------------------|--------|------------|
| Fever                              | 33     | 27.5       |
| Malaria                            | 51     | 42.5       |
| Vomit                              | 12     | 10         |
| Body pain                          | 11     | 9.17       |
| Communicable disease               | 13     | 10.83      |
| Total                              | 120    | 100        |

**Table 3: Occupational Health Disease Status**

The majority of the workers affected by malaria. 12 respondents affected by the vomiting sense. 10.83 percentage of them states that they had affected by the communicable disease. And 27.5 percent of them have reported they frequently affected with the various types of fever.

### Occupational Health and Safety Policy

The following table gives information about the safety policy among respondents.

| Occupational Health and Safety Policy | Number | Percentage |
|---------------------------------------|--------|------------|
| Yes                                   | 36     | 30         |
| No                                    | 84     | 70         |
| Total                                 | 120    | 100        |

**Table 4: Occupational Health and Safety Policy**

Specific occupational safety and health risk factors vary depending on the specific sector and industry, like the healthcare industry. Among the sample women workers, 30 percent of them stated that they had occupational health and safety policy measures in their working place, whereas the vast majority of them had no such facilities in their working centers.

### Hazardous Operation

| Hazardous Operation | Number | Percentage |
|---------------------|--------|------------|
| Yes                 | 63     | 52.5       |
| No                  | 57     | 47.5       |
| Total               | 120    | 100        |

**Table 5: Hazardous Operation**

The researcher attempted to find out the availability of hazardous operation among the sample women workers. The table explains that 52.5 percent of the workers reported that the working Centre carries out the hazardous operation. Remaining 47.5 percent of the workers stated that they had no hazardous operation in their industries.

### Precautionary Measures Provided

| Precautionary Measures Provided Status | Number | Percentage |
|---------------------------------------|--------|------------|
| Yes                                   | 87     | 72.5       |
| No                                    | 33     | 27.5       |
| Total                                 | 120    | 100        |

**Table 6: Precautionary Measures Provided**

The majority of them (72.5 percent) expressed that they had been provided with precautionary measures, whereas 27.5 percent of them were not satisfied with the provision of precautionary measures.
Need of the Safety Measures

Table 7: Need of the Safety Measures

| Need the Safety Measures | Number | Percentage |
|--------------------------|--------|------------|
| Priority                 | 46     | 38.33      |
| Urgent                   | 31     | 25.83      |
| Need                     | 20     | 16.67      |
| Optional                 | 12     | 10.00      |
| Not Required             | 11     | 09.17      |
| **Total**                | 120    | 100        |

Sources: Primary data

Among the sample workers, 46 respondents stated that they wanted the safety measures to give before them. 25.83 percent of them stated that they had need urgently the safety measure to protect from various diseases. 16.67 percent of them reported that they need the safety measures, and 10 percent of them said that the thing was options.

Health Expenditure

Expenditure is one of the important factors to determine the health and safety of the workers and they paved the way for the development of the economy.

Table 8: Health Expenditure among the Sample Workers

| Health Expenditure | Number | Percentage |
|--------------------|--------|------------|
| Salary             | 69     | 57.5       |
| Savings            | 21     | 17.5       |
| Wealth             | 15     | 12.5       |
| Relatives          | 6      | 5          |
| Health insurance   | 9      | 7.5        |
| **Total**          | 120    | 100        |

Sources: primary data

Among the sample workers, 69 respondents (57.5 percent) would make the expenditure on health through the way of salary. 21 respondents (17.5 percent) seeks expenditure on health through the way of savings. 7.5 percent of them stated that they had met the expenditure on health through health insurance. A few of the sample women workers depended on wealth and their relatives to meet their health expenditure.

Enroll of Health Insurance

Health Insurance is an insurance that pays for medical expenses. It may be provided through a government-sponsored social insurance program, or from private insurance companies. In each case, the covered groups or individuals pay premium or taxes to help protect themselves from high or unexpected health care expenses.

Table 9: Enroll of Health Insurance

| Health Insurance | Number | Percentage |
|------------------|--------|------------|
| Yes              | 66     | 55         |
| No               | 54     | 45         |
| **Total**        | 120    | 100        |

Sources: Primary data

Among the sample workers, 66 respondents were stated that they enrolled in health insurance. The remaining 45 percent of respondents were stated that they did not have the health insurance benefits.

Usefulness Status of Health Insurance

In the determinant of health status, occupational health hazards play a vital role. The burden of the patients’ health care costs can be reduced by health insurance. Therefore, the researcher attempted to analyze whether health insurance is useful for their health care cost or not.

Table 10: Usefulness Status of Health Insurance

| Usefulness Status of Health Insurance | Number | Percentage |
|--------------------------------------|--------|------------|
| Yes                                  | 49     | 74.24      |
| No                                   | 17     | 25.76      |
| **Total**                            | 120    | 100        |

Sources: Primary data

The table expresses that the majority of the respondents (74.24 percent) stated that the health insurance was useful in their treatment of health care services and 17 percent of them stated that they had health insurance which was not highly useful in undergone any treatment whereas it had some difficulties to get benefits from the health insurance.
Income and Health Status

Health care is a part of social infrastructure. Availability and accessibility to health facilities are inevitable for the acceleration of the economic development of a country. There is a case for government intervention in infrastructure, as it is believed that a temporary surge in public spending for infrastructure causes a multiple expansion of output. There is a strong relationship with income and health status.

**Table 11: Income and Health Status Income**

| Income   | Very Poor | Poor | Average | Good | Very Good | Total |
|----------|-----------|------|---------|------|-----------|-------|
| Below 5000 | 17 (14.16) | 3 (2.5) | 7 (5.83) | 11 (5.83) | 6 (5) | 44 (36.66) |
| 5000-1000 | 4 (3.33) | 2 (1.66) | 3 (2.5) | 6 (5) | 7 (5.83) | 22 (18.33) |
| 10000-15000 | 1 (0.83) | 4 (3.33) | 9 (7.5) | 5 (4.16) | 2 (1.16) | 21 (17.53) |
| Above 15000 | 7 (5.83) | 4 (3.3) | 9 (7.5) | 8 (6.67) | 5 (4.16) | 33 (27.5) |
| **Total** | 29 (24.17) | 13 (10.83) | 28 (23.33) | 30 (25) | 20 (16.67) | 120 (100) |

Source: Primary Data

The majority of the lower-income group suffered from very poor health status. The women workers who earned above Rs 10,000 as salary expressed that they have the average health status.

**Health Expenditure and Health Status**

The health status is expressed in a five-point scale viz very poor, poor Average, good, and very good. The health expenditure has classified into five. These are salary, savings, wealth, health insurance, relatives.

**Table 12: Health Expenditure and Health Status**

| Health Expenditure | Very Poor | Poor | Average | Good | Very Good | Total |
|--------------------|-----------|------|---------|------|-----------|-------|
| Salary             | 13 (18.84) | 11 (15.93) | 21 (30.43) | 14 (20.29) | 10 (14.49) | 69 (100) |
| Saving             | 7 (33.33) | 2 (9.52) | 5 (23.81) | 3 (14.29) | 4 (19.05) | 21 (100) |
| Wealth             | 6 (40) | 1 (6.67) | 2 (13.33) | 4 (26.67) | 2 (13.33) | 15 (100) |
| Health insurance   | 1 (11.11) | 3 (33.33) | 2 (22.23) | 2 (22.22) | 1 (11.11) | 9 (100) |
| Relatives          | 1 (16.66) | 2 (33.37) | 1 (16.66) | 1 (16.65) | 1 (16.66) | 6 (100) |
| **Total**          | 28 (23.33) | 19 (15.83) | 31 (25.84) | 24 (20) | 18 (15) | 120 (100) |

Source: Primary Data

Among the sample women workers, 69 percent of them used their salary as health expenditure, 19 and 16 had very poor and poor health status, respectively. Totally 21 sample women workers used their savings as health expenditure. Among them 33 percent of the workers had very poor health status. They mainly depend on the savings for seeking health care services. In the same way, the women workers who have had the benefits of using their wealth for health expenditure only working women had the Health Insurance benefits, among them, 33 percent of the had poor health status. Only 6 women workers depend on their relatives for health expenditure. Most of them had a poor health status.

**Table 13: Health Status and Occupational Health Hazards**

| Occupational health hazards | Very Poor | Poor | Average | Good | Very Good | Total |
|-----------------------------|-----------|------|---------|------|-----------|-------|
| Fever                       | 8 (6.67) | 3 (2.5) | 10 (8.33) | 7 (5.83) | 5 (4.16) | 33 (27.49) |
| Malaria                     | 9 (7.5) | 7 (5.83) | 12 (10) | 15 (12.5) | 8 (6.67) | 51 (42.5) |
| Vomit                       | 1 (0.83) | 1 (0.83) | 5 (4.16) | 3 (2.5) | 2 (1.67) | 12 (10) |
| Body Pain                   | 3 (2.5) | 2 (1.67) | 3 (2.5) | 1 (0.83) | 2 (1.67) | 11 (9.17) |
| Communicable disease        | 4 (3.33) | 2 (1.67) | 1 (0.83) | 4 (3.33) | 2 (1.67) | 13 (10.84) |
| **Total**                   | 25 (20.83) | 15 (12.5) | 31 (25.84) | 30 (25) | 19 (15.83) | 120 (100) |

Source: Primary Data
There is a strong relationship between health status and occupational health hazards. Among the women workers, those who suffered from fever due to the occupation expressed that they had average health status. The workers who fell ill for malaria they expressed that they had average and good health status. The women workers suffered from the vomiting sense due to many factors; they expressed that they had average health status. Body pain retards the healthy life, the women workers who suffered from body pain stated that they had very poor health. Due to affect the communicable disease, the women workers in the health care industry stated that they had poor health status.

Psychological Stress, Occupational Health Hazards and Working Time

Under the Occupational Health and Safety Act, occupational illness is defined as a condition that results from exposure in a workplace to a physical, chemical or biological agent, to the extent that the normal physiological mechanisms are affected, and the health of the worker is impaired. The workers in industries felt very bad and have critical situations by having the psychological stress and occupational health hazards. Both things lead to main factors one of the factors is working time.

Table 14 Psychological Stress, Occupational Health Hazards and Working Time

|                                  | Working Time         | Total     |
|----------------------------------|----------------------|-----------|
|                                  | Day                  | Night     | Both (Day/Night) |         |
| Psychological Stress             | Yes                  | 14 (19.71)| 31 (43.66)       | 26 (36.62)| 71 (100) |
|                                  | No                   | 12 (24.49)| 22 (44.90)       | 15 (30.61)| 49 (100) |
| Occupational Health Hazards      | Yes                  | 34 (47.88)| 20 (28.16)       | 18 (25.35)| 71 (100) |
|                                  | No                   | 13 (26.53)| 16 (32.65)       | 20 (40.82)| 49 (100) |

Source: Primary Data

Most of the sample women workers expressed they had psychological stress and occupational health hazards while doing night shifts. Even though 49 sample women workers said that they did not have psychological stress, they had the occupational health hazards because of their night time working hours.

Null Hypothesis

There is a strong relationship between health status and occupational health hazards among the sample workers.

Chisquare Test ($\chi^2$ Test)

The $\chi^2$ test is one of the simplest and most widely used non-parametric tests in statistical work. The symbol $\chi^2$ is the Greek letter, Chi. The $\chi^2$ test was first used by Karl Pearson, in the year 1990. It is defined as;

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

Where, $O =$ Observed frequencies;
$E =$ Expected frequencies.

In this, the test applies to the relationship between health status and occupational health hazards among the health care industry workers.

Null Hypothesis

There is a strong relationship between health status and occupational health hazards among the sample workers.

$$\chi^2 = 6.13$$

Degree of freedom = (r-1) (c-1) = (5-1) (5-1) = 4 x 4

Degree of freedom = 16

Calculated value = 6.13

Table value = 26.296

The calculated value is less than the table value. So the null hypothesis is accepted.

Therefore there is a strong relationship between the occupational health hazards and health status among the sample women workers in the health care industries.

Conclusion

Occupational health hazards emerge due to various factors such as very poor health status,
communicable diseases, epidemics, psychological stress like work-related pressure in the workplace, work shifts, and so on. These factors do not wear all necessary protective equipment and working in multiple facilities. Occupational safety and health programs include fostering a safe and healthy work environment. Occupational safety ensures the protection of co-workers, family members, employers, customers, and many others from the hazardous workplace environment. Healthcare workers face a huge challenge to overcome health hazards and ensure safety. Healthcare workers continue to face several hazards in their workplaces. It is very important to understand that chronic occupational diseases are only preventable but rarely curable. Improving the health of workers, especially women will contribute tremendously to national growth and economy, so the government needs to concentrate more on women workers to provide necessary safety measures in their work places.

Reference
Castro, S.L. et al. “Occupational Health and Safety Issues among Nurses in the Philippines.” AAOHN Journal, vol. 57, no. 4, 2009, pp. 149-157.
Chen, P.Y. and Spector, P.E. “Negative Affectivity as the Underlying cause of Correlations between Stressors and Strains.” Journal of Applied Psychology, vol. 76, no. 3, 1991, pp. 398-407.
Izadi, N. and Piruznia, R. “Occupational Health Hazards among Health Care Workers.” Public Health Open Access, vol. 2, no. 1, 2018.
Landsbergis. P. Occupational Stress among Healthcare workers: A Test of the job demands-Control model, Wiley, 1988.
Manuel, S.V. et al. “The Status of Occupational Safety among Health Service Providers in Hospitals in Tanzania.” Tanzania Journal of Health Research, vol. 10, no. 3, 2008, pp. 159-165.
Nelson, D.L. and Sutton, C. “Chronic Work Stress and Coping: A Longitudinal Study and Suggested New Directions.” The Academy of Management Journal, vol. 33, no. 4, 1990, pp. 859-869.
Owie, H.O. and Apanga, P.A. “Occupational Health Hazards Prevailing among Healthcare Workers in Developing Countries.” Journal of AIDS & Clinical Research, vol. 7, no. 8, 2016.
Rawlance Ndeijo et al. “Occupational Health Hazards among Healthcare Workers in Kampala, Uganda.” Journal of Environmental and Public Health, vol. 2015, pp. 1-9.
Rennie Joshua and Suja Karkada. “A Review on Occupational Health Hazards and its Consequences among Nurses.” International Journal of Nursing Research and Practice, vol. 4, no. 2, 2017, pp. 28-36.
Sadaf Javed and Tehmina Yaqoob. “Gender Based Occupational Health Hazards among Paramedical Staff in Public Hospitals of Jhelum.” International Journal of Humanities and Social Science, vol. 1, no. 3, 2011, pp. 175-180
Senthil, Arasi. et al. “Perception and Prevalence of Work-Related Health Hazards Among Health Care Workers in Public Health Facilities in Southern India.” International Journal of Occupational and Environmental Health, vol. 21, no. 1, 2015, pp. 74-81.
Tlaiss, Hayfia A. “Women in Healthcare: Barriers and Enablers from a Developing Country Perspective.” International Journal of Health Policy and Management, vol. 1, no. 1, 2013, pp. 23-33.
Triolo, P.K. “Occupational Health Hazards of Hospital Staff Nurses. Part II: Physical, Chemical, and Biological Stressors.” AAOHN Journal, vol. 37, no. 7, 1989, pp. 274-279.
Zarrini, K.A. et al. “Evaluation of Occupational Hazards for Nurses in Intensive Care Units of Tertiary Care Centers.” Journal of Nursing and Midwifery Sciences, vol. 5, no. 4, 2018, pp. 153-158.

Author details
Dr. S. Jayaselvi, Assistant Professor, Department of Management Studies, Amrita College of Engineering and Technology, Nagercoil, Tamil Nadu, India. Email ID: selvi.jaya23@gmail.com.