Study on the Health Awareness Levels of Working Women in Chemical Industries

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Abstract

Working women health awareness level has been closely associated with the home and family. By taking up employment, they have to play a dual role: housewife and career woman. There is a clear conflict between the society approved status of women as housewives and mother of children on one hand and their status as more productive workers on the other. Family duties have also imposed restrictions on their role in their employment. As such, there is role conflict faced by working women particularly in the chemical industries. The role conflict and dual role of working women has resulted stress, tension, anxiety, obesity, etc., and consequently, working women are facing frequent ill health, both psychological and physical. This research is analysis the net effect of work status on women's health and whether the effect persists after controlling for the influence of socio-economic factors.

Keywords: Chemical Industries, Working women, Health and Awareness level

INTRODUCTION

Health is Wealth for all. India is one of the few countries in the world where women and men have nearly the same life expectancy at birth. The fact that the typical female advantage in life expectancy is not seen in India suggests there are systematic problems with women's health. Indian women have high mortality rates, particularly during childhood and in their reproductive years.
The health of Indian women is intrinsically linked to their status in society. Research on women's status has found that the contributions that the Indian women make to families often are overlooked and instead they are viewed as economic burdens. Poor health has repercussions not only for women but also their families. Women in poor health are more likely to give birth to low weight infants. Finally, a woman's health affects the household economic well-being, as a woman in poor health will be less productive in the labour force (Raja Rajan, 2013). The women are ready to work for very low wages and for longer hours under exceedingly

inhospitable conditions of work. Their oriental docility normally does not let them join unions and agitate against the management.

RESEARCH BACKGROUND OF THIS STUDY

A woman's health reflects both her individual biology and her sociocultural, economic and physical environments. These factors affect both the duration and the quality of her life. Women who live in poverty or have less than a high school education have shorter life spans, higher rates of illness, injury, disability and death and also more limited access to high quality health care services.

The level of women's health is one of the major factors determining their ability to contribute, individually and collectively to a nation's development. Hence, women's ability, rights, health needs are all taken into account at every stage. Women's general health and status are derived from their entire contribution to society, rather than only from reproductive role. Work and work environment plays a pivotal role in the deterioration of women's health. The major occupational diseases or morbidity of concern in India are silicosis, musculoskeletal injuries, coal workers' pneumoconiosis, chronic obstructive lung diseases, asbestosis, bysinosis, pesticide poisoning and noise- induced hearing loss.

The chemical industries work related diseases of women are therefore, more dangerous, as they affect not only the present but also the future generations. It is highly doubtful whether any comprehensive study has been done so far about the health problems caused by industries to its employees especially women employees in Tamil nadu.

In this study has found that even though nearly half the working women surveyed are either diagnosed with or know someone else diagnosed with issues such as infertility, breast cancer and PCOS (Polycystic ovary syndrome), they are still hesitant to discuss these health issues. 75 percent of the working women said that their employers were taking initiatives to help address health issues, the study also found that over 80 percent of them felt that their male colleagues lacked sensitivity when it came to women's health related concerns, therefore, an attempt is made to study the health status of working women and problems and also its economic consequences of physical disorders of the working women in chemical industries in Cuddalore district.

SCOPE OF THIS STUDY

The importance of the present study stems from the fact that very few studies analyse the chemical industry working women related health status and its economic burden on the industrial women workers nationally.

This study has been made analysis of the awareness levels of the health problems in women workers at chemical industries. All these works are based on the morbidity pattern of the general population and not on a specific category. In fact, no empirical studies of work environment and its impact on the health of the working women in the chemical industrial sector could be found in the Indian and Tamil nadu context.

STATEMENT OF THE PROBLEM

Cuddalore District have many chemical industries many women's are working in the chemical industries. In the long run, due to synergistic effect of many chemicals in the presence of excessive heat and lack of ventilation and improper ergonomic condition, the major occupational health problems which can be expected are many. Common acute occupational illnesses observed are allergic skin diseases, allergic lung disorders and irritation of eyes with lacrimation, photophobia, cancer and conjunctivitis. Long working hours, exposure to excessive heat, low illumination, improper posture, using improper safety measure cause health problems like skin problem, affecting lungs, resulting in stunted physical growth and development etc. The majority of the remaining population does not understand why the specifically poisonous chemicals and it leads for more and more humans to heaviest health impairments and yes, even to a death threat. Hence, the researcher wanted to choose the topic is the awareness levels of the health status of working women in chemical industries with reference to Cuddalore District.

OBJECTIVES OF THE STUDY

The following objectives are framed for the purpose of the present study:

- To examine the health awareness status of working women in chemical industries in Cuddalore.
- To analyse the health problems faced by the working women in chemical industries in the study area.
- To examine the working environment of the respondents in the chemical industries.

HYPOTHESES OF THE STUDY

The following hypotheses are formulated on the basis of the content of the framed objectives and appropriate statistical tools are applied to test them.

- There is significant association between economic status of working women and their health problems.
- There is a significant of relationship between socio economic conditions and health status of working women.
- In the study area there is difference between natures of work adversely impact of respiratory systems.

REVIEW OF LITRATURE

The literature review consists of dependent and independent variable that related to the research topic and research objectives. Following by reviewing of theoretical models that been studied previously as the foundation to develop new ideas for the conceptual framework.

World Health Organization report defined as the combination of knowledge, practices and attitudes that together contribute to motivate the actions people take regarding health and wellness. Health promotion is the process of enabling people to increase control over, and to improve, their health (WHO, 1986). Health promotion is also the science and art of helping people change their lifestyle to move toward a state of optimal health. The health continuum that between optimal health and death lies disease,

which is preceded by a prolonged period of negative lifestyle habits. Individual behaviours and environmental factors are responsible for about 70 percent of all premature deaths in the United States.

RESEARCH METHODOLOGY

- Research methodology is a way to systematically solve the research problem. It is a plan of action for a research project and explains in detail how data are collected, analysed and presented so that it provides meaningful information. This chapter explains the research design, construction of the research instrument, pilot study, respondents of the study, data collection procedure and data analysis tool.
- This study used a descriptive research approach and the present study falls under the category of descriptive studies as the nature of the problem is to determine the relationship among the different variables. This research study is descriptive in nature and the technique is applied as a survey research. So, the researcher chooses the survey research technique for this study. The major strength of survey research is its wide scope and ability to collect the detailed information from the respondents. This research is conducted in the Cuddalore Districts chemical industries employees only. For them, research schedule is found to be the suitable tool for making the study.
- Sampling selection in Cuddalore Districts there are 109 chemical factories registered in TANFRA (Tamil Nadu Factory Registration Association) these chemical industries runs under the Tamil nadu Government regulation and the chemical industries give direct employment opportunity to 4,346 women workers in Cuddalore Districts alone.
- The intent of the study is to find out the health status of working women in chemical industries at Cuddalore. Based on the literature review, the importance of working women health status are identified by the researcher. There are working women health status explains the reliable information about the chemical industries. Further, the health status of working women factors are identified and the namely, health details, reproductive and maternal health, mental health, prevalence of diseases, etc. are the impacts in chemical company employee health status.
- A pilot study is the process of carrying out a preliminary study, going through the entire research procedure with a small sample. However, a pilot study can also be the pre-testing or trying out of a particular research instrument (Baker, 1994). Based on the content validity result, the survey instrument is reframed. The modified version of the research tool is considered for the pilot study. The intention of this pilot study is to determine the response rate likely to be encountered in the main survey and to determine the reliability of the tool for this study. This study is conducted at Cuddalore Districts, Tamilnadu. In this selected chemical industries for conducting pilot study. The researcher conducted a pilot study by using convenience sampling method.

- A sample of 100 respondents has been chosen to participate in this study. All the 100 respondents responded in a proper manner. The collected pilot study data are coded and entered in the statistical package for social science software package (SPSS version, 20). Further, cronbach Alpha reliability test is applied.

The result of the reliability is displayed in the Table (1).

Table 1 explains the reliability value for the research tool. While reading the reliability value, it is indicated that the instrument is sufficiently reliable to answer the research objectives. The Cronbach's reliability test Alpha value has been found to be in the range of 0.71 and 0.86. Since, the value is more than 0.70, the reliability has been established (Nunnally, 1978).

Table-1: Reliability value for the research tool

S.No	Study variables	Cronbach Alpha Value
1	Mental Health	0.82
2	Communicable diseases	0.78
3	Poor health Reason	0.79
4	Awareness	0.71
5	Physical environment	0.80
6	Health care facilities	0.86
7	Chronic diseases	0.76

Source: primary data computed.

DATA ANALYSIS

A detailed discussion of the data analysis procedure is presented here. At this stage, the data analysis procedure is conducted through survey measures. Responses are coded and data entered and then analysed using a computer program called statistical package for social science (SPSS version 2.0). Statistical analyses of the data have used the following methods.

Statistical analyses of the data are performed using the following methods. Descriptive statistics is used to describe the sample, to show the numbers and percentages of people or items that fall into categories and measures the central tendency.

LEVEL OF HEALTH AWARENESS OF THE WORKING WOMEN RESPONDENTS

In order to analyse the level of health awareness the variables which determine the health awareness such as personal hygiene, physical health reproductive health care, child health care, mental health care, marital health awareness, sanitation, immunisation, nutritional awareness, causes of diseases, consequences of illness, treatment of diseases, prevention of diseases, health care services and health programmes and policies were scored and the percentage was calculated for each sample chemical industry working women respondents. Based on the percentage, the level of health awareness was categorized as Low level (Those who scored less than 60

percent), Medium level (Those who scored between 60 percent and 80 percent) and High level (Those who scored more than 80 percent).

Table 1 health care awareness status of the respondents

S. No	Level in Percent	No of respondents	Percent
1	Low	292	69.7
2	Medium Low	81	19.4
3	High	46	10.9

Source: Primary data computed

Health care awareness status displayed in the table 1. It is observed that the level of health care awareness status is low for 292 at 69.7 percent of the sample working women respondents followed by, medium for 81 at 19.4 percent of the sample working women respondents and high for 46 at 10.9 percent of sample working women respondents in the study area.

Table 2 Respondents opinion towards physical environment of the factory

Physical environment	Mean	Std. Deviation
Dirty	3.89	0.383
Inadequate light	3.45	1.515
Noise pollution	3.57	1.264
Inadequate ventilation	3.61	1.401
Overcrowding	3.76	1.342
Problem with safe	3.68	1.431
Drinking water	3.26	1.417
Separate toilet not present	4.01	0.322
No problem	3.02	1.355

Source: Primary data computed

Table 2 explains the respondent's opinion level towards factory physical environment. Here, the physical environment of the factory is analysed with nine factors in the five point Likert scale. Further, mean and standard deviation values are calculated for each factor. The mean values are ranged from 3.02 to 4.01. The calculated standard deviation values lies between 0.32 and 1.51. From the mean values, it is inferred that the respondents are highly rated and the chemical industry not having clear and separate toilet facility (4.01) followed by the environment having dirty (3.89), more people working in particular place (overcrowding) (3.76), they are feel that the chemical industry not safe for working women (3.68), inadequate ventilation (3.61), noise pollution (3.57), inadequate light (3.45), drinking water (3.26) and some respondent stated that not having

problem (3.02). From the standard deviation values, it is noted that the respondent's opinion towards industry physical environment is not varied as much.

It is observed that the most of the respondents preferred that they need to provide the toilet facility with proper clean and separate for women workers and also need to provide the safe drinking water, they factory environment need to clean.

Table 3 Respondents opinion towards health care facilities of the factory

Health care facilities	Mean	Std. Deviation
Pre-placement examination	3.49	1.356
Periodic health check-up	4.07	0.329
Constant presence of doctor or nurse	4.01	1.280
Primary treatment and free medication	3.76	1.242
Health insurance	3.78	1.221
Maternity leave	3.87	1.315
Day care centre	3.67	1.192
Compulsory use of cap, mask and apron	3.96	1.270
Canteen facility	3.73	1.243
No facilities	3.94	0.267

Source: Primary data computed

The respondent's opinion level towards health care facilities in the chemical industries displayed at 3. Here, the health care facility of the factory is analysed with ten factors in the five point Likert scale. Further, mean and standard deviation values are calculated for each factor. The mean values are ranged from 3.49 to 4.07.

The calculated standard deviation values lies between 0.26 and 1.31. From the mean values, it is observed that the respondents are highly rated and the chemical industry not having periodic health check-up facility (4.07) followed by the constant presence of doctor or nurse (4.01), compulsory use of cap, mask and apron (3.96), they are feel that the chemical industry not having health care facilities (3.94), maternity leave (3.87), health insurance (3.78), primary treatment and free medication (3.76), canteen facility (3.73), day care centre(3.67) and pre-placement examination(3.49) .From the standard deviation values, it is found that the respondent's opinion towards industry health care facilities is not varied as much.

It is noted that the respondents are highly rated that the periodic health check-up facility, constant presence of doctor or nurse and less rated that the canteen facility, day care centre and pre-placement examination.

LIMITATIONS OF THE STUDY

- The present study is limited only to Cuddalore district of Tamil Nadu. So the entire findings may not be applicable entire states.
- Data regarding the socio economic condition and health of the respondents are undertaken for a period of one year.

Within the short span of time it may not draw correct inference. The results drawn may not to be applicable to all the women in the study area.

- This study is limited to be Cuddalore district and it is particularly about chemical industries working women only.

FINDINGS OF THE STUDY

In this chapter, the major findings of the study are presented. The research study has been conducted on health status of the chemical industries working women's. The empirical base for the study is worked out on the basis of 5-1 points scale with a given weighted as health status. The detailed analysis and findings are discussed in previous chapter. Based on the data, this chapter underlines the main findings of the study.

SUMMARY OF FINDINGS

It is found that majority of respondents are had child delivery at Government Hospitals and it is shows that the most of respondents are taken doctor help assistance during the child delivery.

The working women reproductive health related problem status analysed and found that there are 67.8 percent of respondent are having the menstrual related health problem and 32.2 percent of respondent are not having the menstrual related health problem.

The working women facing psychological symptoms occurred last one year status and found that there are 58.2 percent of respondent are facing stress related health problem and 41.8 percent of respondent are not having the stress related health problem.

It is observed that the most of the respondents preferred that they need to provide the toilet facility with proper clean and separate for women workers and also need to provide the safe drinking water, they factory environment need to clean.

It is inferred that the most of the respondents highly rated that the headache or shoulder pain, general weakness and chest pain and less rated that the insomnia and backache.

The inadequate ventilation, noise pollution, separate toilet not present and drinking water factors are having strong relationship with chronic diseases. However, the factory environment dirty have week relationship.

The constant presence of doctor or nurse, no facilities, periodic health check-up, health insurance, compulsory use of cap, mask and apron and day care centre these factors are positively influenced the health status of the chemical industries working women. But, pre-placement examination, primary treatment and free medication, maternity leave and canteen facility these factors negatively influenced.

CONCLUSION

Health is a multi-dimensional and multi-causal variable. Health and development are closely interlinked. It is now established that the poor state of health slows down economic development and that insufficient economic development perpetuates a bad state of health. Generally, health improvement tends to increase worker productivity and these contribute to develop their economic growth.

The chemical industry working women in Cuddalore District of Tamilnadu suffer

from many health problems. The major problems are related to malnutrition and reproductive health. The low health status of working women is attributed to a host of socioeconomic factors that are closely linked with each other. An integrated health policy approach is required to improve their health status.

Health related problems have become a common phenomenon in the industrialized world. Whatever, preventive measures the workers adopt, it does not help the workers to protect themselves. The present study area of chemical factories has its own hazardous effect on the workers. In addition to the environmental damages, health is becoming a major problem in this study area.

The researcher found that while visit to the chemical factories for their data collection, the women workers are not able to tell their answers face to face. They heard the questions and told the answers with their work in progress without any trouble. Because every minute is money for them. They don't want to spend time to tell their answers to avoid stop their work even for few minutes.

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