



## Industrial Based Occupational Diseases- A KAP Study On Workers of Rayalaseema Region

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**ABSTRACT:** *An occupational disease is any chronic disorder that takes place as a result of work or occupational activity. Occupational diseases are increasing invariably due to various technical, economical, social and global pressures but there is no prevention for occupational diseases. They are inevitable in industrial scenario. Under these circumstances, a survey was conducted at select industries of Rayalaseema region of Andhra Pradesh which include textile, mineral and chemical industries of Cuddapah, Kurnool, Chittoor, and Ananthapur districts to determine the knowledge, attitude, and practices of workers in combating the occupational diseases at workplace. A stratified random sample of about 90 workers from all the 4 districts who are engaged in various industries are considered for the present study using an interview schedule. Results revealed that the socio demographic variables have not influenced their knowledge, attitude and practice but habits and type of food influenced their knowledge and practices in reducing the occupational diseases significantly. Further it is identified that workers with good attitude in combating occupation diseases are following the precautionary measures to avoid them.*

**Keywords:** Occupational diseases, industrial workers, KAP Analysis.

### I. INTRODUCTION

An occupational disease is any chronic disorder that takes place as a result of work or occupational activity. It is a characteristic of occupational safety and health. An occupational disease is usually identified when it is shown that it is more prevalent in a given body of workers than in the general population, or in other worker populations. "An occupational disease is a disease or disorder that is caused by the work or working conditions. This means that the disease must have developed due to exposures in the workplace and that the correlation between the exposures and the disease is well known in medical research."

Some well-known occupational diseases include; lung diseases, skin diseases, heart diseases, other diseases of concern: 'Carpal tunnel syndrome' among persons who work in the poultry industry. 'Computer vision syndrome' among persons engaged in using information technology for hours. Lead poisoning affects workers in many industries including those workers who are employed in the lead or lead compounds. The new list of ILO includes a range of internationally recognized occupational diseases, from illnesses caused by chemical, physical and biological agents to respiratory and skin diseases, musculoskeletal disorders, occupational cancer and mental and behavioral disorders.

#### Types of Occupation related Diseases

Some causation agents of occupational diseases include: mental, gas, solvent, vibration, temperature, radiation, pressure, infectious agent, and pesticide/herbicide/rodenticide/fungicide. There are many different categories of hazards that can be the cause of workers' health problems. They include: Physical hazards (extreme temperatures, noise, electrical, mechanical, etc.), Clinical hazards (acid/alkali, solven, disinfectant, anesthetic gas, etc.), Biological hazards (virus, bacteria, protozoa, fungus, plasmodium, etc.), Ergonomic hazards (repetitive motion, static motion, lifting weight, etc.), Psychosocial hazards (occupational stress, depression and anxiety disorders, sexual harassment, etc.)

These types of occupational diseases burden generally falls on the employer or the insurer and as well the on well being of the workers. Hence, creating and enhancing the awareness and good practices to overcome the occupational diseases among workers is of significance.

Hence, it is necessary to analyze the level of Knowledge, Attitude and Practices among workers impacting such occupational diseases.

## **II. REVIEW OF LITERATURE**

Many studies reveal that there is an impact of socio-economic conditions on the health of an individual. The references quoted here exhibit the close relatedness of occupational diseases and the socio-economic status of industrial workers. The studies conducted by Edith Chen (2007), Emmons KM (2007), Joan M Ostrove, Nancy E Adler (1998) clearly indicate that socio-economic status of individuals effect their psychological and physiological health. It is noteworthy to mention few studies conducted by researchers in India and other developing nations of the world with regard to occupational diseases.

Saiyed HN, Tiwari RR, 2004 has mentioned in an article that India being a developing nation is faced with traditional public health problems like communicable diseases, malnutrition, poor environmental sanitation and inadequate medical care. Rantanen J, Lehtinen S, Savolainen K, (2004), has stated in an article the lack of work safety, excessive workloads, and occupational physical, chemical and biological exposures result in occupational diseases, injuries and as many as 1.2 million fatalities each year. Marie JL. (2006), the study also indicated that the sectors most affected are traditionally heavy industry, agriculture, mining and construction. In an article by Joshi TK, Smith KR. (2002), it is expressed that a silver lining comprises the inclusion of OHS in national health policy and the decision by the Indian Medical Association to educate its members in occupational health. In a review by Sarah A. Burgard, Katherine Y. Lin, (2013), researchers touch on a broad array of ways that work is linked to health and health disparities for individuals and societies.

### **Research Gap**

From the above reviews it is identified that there are very few studies on the industrial workers of Rayalaseema region especially in the area of occupational health and safety. The workers may not have any knowledge about what is happening for their health and related aspects by engaging in a particular occupation/job of an industry. There were many radical changes in the field of technology, management approaches; accessibility to information via internet and other sources which impact the attitude and knowledge among workers of industries about occupational diseases too. Hence, a study is undertaken to assess the level of knowledge, level of attitude and the extent of practice with regard to occupational diseases among the workers engaged in select industries of Rayalseema region.

This would certainly help the concern authorities and industrial managements to focus more on this crucial aspect of workers health and safety.

## **III. METHODOLOGY**

This section deals with the methodology adopted for the study. It includes, objectives, hypotheses, research approach, design for the study, the setting, sample and sampling technique, development of the tools, data collection procedure and data analysis.

### **3.1 Objectives of the study**

1. To assess the socio-economic factors those impact the workers knowledge, attitude, practices regarding occupational health and safety at work.
2. To make an attempt to find out other significant factors such as physical exercise and habits on the KAP of the workers regarding occupational diseases.
3. To evaluate the impact of knowledge on attitude of workers on the occupational health and safety at workplace.
4. To find out the impact of workers attitude on their practice of safety measures to overcome occupational diseases at work

### **3.2 Hypotheses**

- There is a significant impact of socio-economic factors on the health of the industrial workers.
- There is a significant influence of workers knowledge on the safety practices adopted by workers to overcome occupational health risks at work.
- There is no significant influence of workers attitude on their safety practices towards occupational diseases.
- There is no significant association between workers specific food and physical exercising, other harmful habits on the safety practices regarding occupational safety and health.

### **3.3 Research approach**

Survey method is adopted to determine the knowledge, attitude, and practices of workers in combating the occupational diseases at workplace.

### **3.4 Study area and Population**

The area of study is the workers of select industries at Rayalaseema region of Andhra Pradesh. Rayalaseema region comprises of four districts of Andhra Pradesh viz., Chittoor, Cuddapah, Kurnool and Ananthapur districts. There is a variety of industries established in this region. Almost all the large scale industries are prone to occupational health and safety risks. To specify few are Asbestos, Hume pipes manufacturing, Glass industry, Chemical industry, etc.

These small, medium and large scale industries of Rayalaseema region employ lakhs of workers in various occupations. Specifically, Bharathi Cements Limited, Penna Cements, Ultra Tech Cements Limited, Amara Raja Batteries Limited, Dora Plastics Limited, Nandi Pipes, Rayalaseema Alcholics are covered under the present study. Most of the industries specified above are situated in these four districts of Rayalaseema region. They are Cuddapah, Kurnool, Ananthapur, and Chittoor districts. Hence the select industries are taken from these districts at random..

### 3.5 Sampling frame

This is a cross-sectional study that involved workers of select industries in Rayalaseema region of Andhra Pradesh.

### 3.6 Study tool

A structured interview schedule is drafted to find out the knowledge, attitude, and practices of the workers combating occupational diseases which are inevitable at workplaces. The interview schedule contains two sections, first was demographic section which covers information regarding age, gender, education, income, experience, designation, food habits and details of physical exercise of workers. The second section comprises questions/statements to assess the correlation between the levels of knowledge, attitude of workers on their practices to safeguard themselves against occupational diseases.

### 3.7 Sampling Technique and Sample Size

A Stratified Random Sampling technique was used to collect data from workers from the select industries of Rayalaseema which include textile, mineral, chemical etc, industries. The number of workers from each region has been fixed as 30, so that total sample of workers has come up to 90.

### 3.8 Statistical Analysis

Collected data is analysed using appropriate statistical tools like frequency tables (one-way tables), Cross tabulations (two-way tables), Percentages, Chi-square tests, Karl Pearson’s coefficient of correlation using SPSS version 20. Obtained results are properly concluded at various significant levels.

## IV. RESULTS AND DISCUSSION

The results bring forth some interesting facts about present study intends to assess the Knowledge, Attitude and Practice of workers towards occupational safety and health in select industries of Rayalaseema region.

The socio-economic and other personal habits, living conditions, hereditary aspects contribute directly to the extent of severity of occupational diseases among industrial workers.

Socio Economic details of the workers		
<b>Gender</b>	Male	68 (75.6)
	Female	22 (24.4)
<b>Age of the respondents</b>	Below 25 years	33 (36.7)
	26 - 35 years	49 (54.4)
	36 - 45 years	8 (8.9)
<b>Education</b>	No Education	21 (23.3)
	Below 5 <sup>th</sup>	13 (14.4)
	6 <sup>th</sup> - 10 <sup>th</sup>	50 (55.6)
	Intermediate and above	6 (6.7)
<b>Type of house</b>	cement-bricks	66 (73.3)
	Mud –straw	24 (26.7)
<b>Monthly income</b>	Rs.6000-Rs.10,000	71 (78.9)
	Rs.11,000 - Rs.15,000	18 (20)
	Rs. 15,000 and above	1 (1.1)

The table-4.1 presents the socio-economic details of the workers which include gender, age of the respondents, education, type of house, monthly income, etc. Among the respondents taken for the study female workers comprise 24 percent and male 76 percent. This ratio indicates common phenomena of male worker participation in industrial sector of the region. The age of the respondents reveal that among all the respondents

54 percent of them belong to the age group 26-35 years. 37 percent of the workers belong to age below 25 years. Regarding the level of education of the workers, 23 percent of the workers don't have education at all, whereas 56 percent of the workers have education between 6th – 10th class. Only 7 percent have an educational qualification of intermediate and above. These statistics reveal that level of education among the workers is very low. The type of house where in the workers reside is also considered. 73 percent of the workers live in cement-bricks made houses whereas 27 percent of the workers reside in mud-straw built houses.

This categorization indicates the hygiene living conditions where workers reside. Compared to the health conditions prevalent in mud-straw made houses the workers health in cement- bricks houses is considered to be more impacting. In a study conducted by James Krieger, Donna L Higgins rightly mentioned that poor housing conditions are associated with a wide range of health conditions. In fact there are no such outcome traced in the present study. 79 percent of the workers belong to Rs.6000 – Rs.10, 000 level of income. Only 20 percent draw an income between Rs.11,000 – Rs.15,000.

Type of Food		
Type of Food	Roti- Curry	26 (28.9)
	Rice- curry	64 (71.1)
Habits	Smoking	18 (20)
	Drinking	5 (5.6)
	Chewing tobacco/gutka, etc.	18 (20)
	No bad habits	49 (54.4)
	Exercise	Yes
Exercise	No	52 (57.8)
	Diseases	Neurological
Diseases	Respiratory	39 (43.3)
	Cardiological	6 (6.7)
	Dermatological	30 (33.3)
	Ortho	12 (13.3)
	Reason for ill health	Hereditary
Reason for ill health	Nature of work	69 (76.7)
	Personal Habits	3 (3.3)

The table-4.2 exhibits interesting facts about the factors such as type of food consumed by the workers, habits, exercise, diseases, and their reasons for ill health. 71 percent of the workers take curry-rice as their staple food; where as 29 percent take roti-curry as their regular food. The study findings show that 58 percent of the workers have no personal habits which impact their health in general and in occupational related aspects. 20 percent of the workers have the habit of chewing tobacco, gutka, etc. 20 percent of the workers have the habit of smoking. 58 percent of the workers don't have the habit of doing physical exercise, 42 percent of the workers indulge in regular exercise. The analysis also indicates that 43 percent of the workers have the problems related to respiratory diseases. 33 percent of the workers encounter dermatological diseases, 7 percent of the workers face cardiology related diseases, and 13 percent of the workers have ortho related problems. The reasons for ill health of the workers are hereditary (20 percent), due to nature of work (77 percent), personal habits (3 percent).

Nature of work		
Nature of work	Technical	64 (71.1)
	Non-technical	26 (28.9)
Experience in years	Below 5 years	17 (18.9)
	6-10 years	30 (33.3)
	11 - 15 years	22 (24.4)
	16 years and above	21 (23.3)
Status of leaves	Less leaves	51 (56.7)
	Nil	39 (43.3)

Table-4.3 describes the occupational details of the workers. The data related to the factors such as nature of work, experience in years, the status of leaves taken by the workers is presented above. The nature of work is divided into technical and non-technical for the study. 71 percent of the workers belong to technical nature of work and 29 percent of the workers belong to non-technical nature of work.

While interviewing them regarding their knowledge it is noticed that 29 percent of the workers don't have the knowledge on availability of safety equipment, 70 percent of the workers know moderately about the use of safety equipment. About 70 percent of workers don't possess complete knowledge over the dangers involved if safety equipment is not used at workplace. Only 26 percent of the workers very well know that they have safety equipment available at workplace.

The attitudes of the workers are quite interesting on combating with occupational diseases at workplace. 34 percent of the workers strongly agreed that safety at workplace is management's responsibility. 2

percent strongly agreed that they would raise voice against management for allotting unsafe work to them. This definitely shows that workers carry very poor or unacceptable attitude towards the safety at workplace. Only about 6 percent could express that there is no safety equipment being provided by the management to the workers which are very contradicting to the researcher’s observations. This also reveals the poor attitude of workers about occupational safety and equipment.

Discussions on practice of the workers in avoiding the occupational diseases and unsafe work activities explores some of the facts that only 8 percent of the workers always practice on the instructions given by the supervisors regarding occupational safety. About 9 percent of the workers visit doctors for regular health checkups as a safety and preventive measure to avoid occupational diseases encountered at workplace. Alarmingly, 68 percent feel uncomfortable to use safety equipment sometimes.

This section deals with the scores of KAP (Knowledge- Attitude- Practice) pertaining to occupational diseases after allotting proper weightages as 1, 2, 3 and 4 for don’t know, somewhat known, moderately known and very well known in knowledge scale; for strongly disagree, disagree, agree, and strongly agree in attitude scale; never, sometimes, frequently and always in practice scale respectively. Further scores are categorized into 3 components based on quartiles in such a way that the knowledge score lesser than the first quartile (<Q1) is treated as *low* category; between the first and third quartiles as *moderate* category (Q1 –Q3) and the score higher than third quartile (>Q3) is named as category *high*. The same method was followed for *attitude* and *practice* scores but different names are allotted for attitude scores as unfavorable, favorable and highly favorable instead of low, moderate and high respectively.

**Table-4.4:** Level of knowledge on occupational diseases

Level of knowledge	No.of workers	%
Low	20	22.2
Moderate	39	43.3
High	31	34.4
Total	90	100.0

The above table-4.4 states that 43 percent of the workers have moderate level of knowledge on the occupational diseases at work. This indicates that there is very low level of knowledge among the workers on work related issues. 34 percent of the workers possess high level of knowledge on occupational diseases that they encounter at workplaces, which could be attributed to their level of education, training and awareness programs by the managements, etc.

**Table-4.5:** Level of attitude on occupational diseases

Level of attitude	No.of workers	%
Unfavourable	14	15.6
Favourable	30	33.3
Highly favourable	46	51.1
Total	90	100.0

Table-4.5 reveals that 51 percent of the workers have a very highly favorable attitude towards occupational health and safety. It indicates that they don’t have complete knowledge (34 percent) of the occupational diseases that they encounter at workplace and they also possess a highly favourable (51 percent) attitude to tackle such diseases with more safety and precaution. 33 percent are favorable with their attitude towards the occupational diseases. Very less percent of workers (16 percent) of the workers are carrying an unfavorable attitude on occupational diseases. This might be analyzed in such a way that though there is no knowledge, the workers attitude tends to focus on availability of occupational safety and health.

**Table-4.6:** Level of practice on occupational diseases

Level of Practice	N	%
Low	36	40.0
Moderate	41	45.6
High	13	14.4
Total	90	100.0

The above table-4.6 evaluates the overall level of practicing safety measures by the workers against the occupational diseases that they encounter at workplaces. Surprisingly, only 14 percent of the workers are low with their practices to prevent or minimize the impact of occupational diseases on their health where as their

level of knowledge and attitude is comparatively high. Unfortunately, it is not corresponding with the practices adopted by the workers.

**Table-4.7: Impact of the knowledge on attitude of workers on occupational diseases**

Chi-square value	p-value	Level of Attitude			Total
5.062	0.281	Unfavourable	Favourable	Highly favourable	
Level of knowledge	Low	4	8	8	20
		20.00%	40.00%	40.00%	100.00%
	Moderate	3	15	21	39
		7.70%	38.50%	53.80%	100.00%
	High	7	7	17	31
		22.60%	22.60%	54.80%	100.00%
Total		14	30	46	90
		15.60%	33.30%	51.10%	100.00%

It is clearly evident from the above evaluation that there is no significant association of level of knowledge and level of attitude of the workers on occupational diseases encountered at workplaces. 40 percent of the workers with low level of knowledge are highly favorable with their level of attitude but with a low level of knowledge. 23 percent of workers with unfavorable attitude are high with their knowledge of occupational diseases. This clearly indicates that there is no association between the level of attitude and knowledge of the workers.

**Table-4.8: Impact of the attitude on practice of workers on occupational diseases**

Chi-square value	p-value	Level of Practice			Total
7.865	0.097	Low	Moderate	High	
Level of knowledge	Low	11	6	3	20
		55.00%	30.00%	15.00%	100.00%
	Moderate	18	15	6	39
		46.20%	38.50%	15.40%	100.00%
	High	7	20	4	31
		22.60%	64.50%	12.90%	100.00%
Total		36	41	13	90
		40.00%	45.60%	14.40%	100.00%

In table-4.8 there is an evaluation of two variables of the study, the level of knowledge and level of practices of workers is assessed to find out whether there is an association between both of them with regard to occupational diseases. It is discovered that there is no significant association between the level of knowledge and level of practices of workers. 23 percent of workers with high level of knowledge are low with their practices to overcome occupational diseases.

**Table-4.9: Impact of the attitude on practice of workers on occupational diseases**

Chi-square value	p-value	Level of Practice			Total
13.56**	0.009	Low	Moderate	High	
Level of Attitude	Unfavourable	5	3	6	14
		35.70%	21.40%	42.90%	100.00%
	Favourable	14	12	4	30
		46.70%	40.00%	13.30%	100.00%
	Highly favourable	17	26	3	46
		37.00%	56.50%	6.50%	100.00%
Total		36	41	13	90
		40.00%	45.60%	14.40%	100.00%

In the above table-4.9, the relationship between the level of attitude and level of practices is assessed with the application of Chi-square test. The results prove that the level of attitude has significant impact on the level of practice of the workers regarding occupational diseases. 57 percent of the workers with favorable level of attitude have moderate level of practices towards reducing the negative impacts of occupational diseases. There is a complete evidence that there is a significant association of knowledge and practices of workers to overcome occupational diseases. If the knowledge of the workers is enhanced then there is an expected change in their practices.

**Table-4.10: Correlation between type of food and diseases encountered by the workers**

Chi-square value	p-value	Diseases					Total
13.52**	.009	Neurological	Respiratory	Cardiological	Dermatological	Ortho	

Type of Food	Roti-Curry	0	7	1	16	2	26
		0.0%	26.9%	3.8%	61.5%	7.7%	100.0%
	Rice- curry	3	32	5	14	10	64
		4.7%	50.0%	7.8%	21.9%	15.6%	100.0%
Total		3	39	6	30	12	90
		3.3%	43.3%	6.7%	33.3%	13.3%	100.0%

The food habits of the workers do impact their health in one way or the other. Many studies have proved that eating habits and the nature of food that is consumed by the workers impact their health. The above table-4.10 has categorized the type of food into two. One type is roti-curry and second type of food is rice-curry. 4 percent of the workers who take roti-curry have cardiological problems. 62 percent of the workers who consume roti-curry regularly have suffered from dermatological diseases. 50 percent of the workers who rely on rice- curry regularly have faced respiratory problems. 22 percent of the workers who consume rice-curry as their staple food have dermatological problems. Thus, it is clear that type of food has significant impact on the diseases encountered by the workers which are in turn can be associated to their work related occupational diseases. The same is proved by a study undertaken by researchers I D Desai, M L Garcia et al., with regard to impact of food habits on the health and nutritional status of agricultural migrant workers.

**Table-4.11: Impact of habits on workers diseases**

Chi-square value	p-value	Diseases					Total
		Neurological	Respiratory	Cardiological	Dermatological	Ortho	
40.749**	0.00						
Habits	Smoking	3	8	1	5	1	18
		16.7%	44.4%	5.6%	27.8%	5.6%	100.0%
	Drinking	0	2	3	0	0	5
		0.0%	40.0%	60.0%	0.0%	0.0%	100.0%
	Chewing tobacco/gutka, etc.	0	6	0	8	4	18
0.0%		33.3%	0.0%	44.4%	22.2%	100.0%	
No habits	0	23	2	17	7	49	
	0.0%	46.9%	4.1%	34.7%	14.3%	100.0%	
Total		3	39	6	30	12	90
		3.30%	43.3%	6.7%	33.3%	13.3%	100.0%

In the above table-4.11, an attempt is made to create an association between the habits of the workers and diseases. 44 percent of the workers who have the habit of smoking have respiratory related diseases. 44 percent of the workers having the habit of chewing tobacco/gutka face dermatological related diseases. 60 percent of the workers with drinking habit suffer cardiological related diseases. Workers without any habits have not encountered any neurological related diseases. This evaluation clearly reveals and proves as many studies that there is a highly positive significant impact of habits on the types of diseases encountered by the workers in organizations.

**Table-4.12: Relationship between exercise and diseases among the workers**

Chi-square value	p-value	Diseases					Total
		Neurological	Respiratory	Cardiological	Dermatological	Ortho	
9.461*	.041						
Exercise	Yes	3	15	0	15	5	38
		7.9%	39.5%	0.0%	39.5%	13.2%	100.0%
	No	0	24	6	15	7	52
0.0%		46.2%	11.5%	28.8%	13.5%	100.0%	
Total		3	39	6	30	12	90
		3.3%	43.3%	6.7%	33.3%	13.3%	100.0%

The above analysis interprets the significance of physical exercise in relation to the diseases that are experienced by the workers in the organizations. It is clear from table-4.12, that exercise has very significant impact on the diseases that are encountered by the workers. There are no workers who perform regular exercises who had ever faced cardiological related diseases. 8 percent of the workers who do exercise regularly had neurological problems. 46 percent of the workers who never do exercise experienced respiratory diseases. The application of chi-square test also indicates that it is significant at the level of 5%.

### Findings and Suggestions

The present study on the workers' KAP Analysis on occupational diseases of Rayalaseema region has put forth many interesting findings. The study reveals that majority of workers' (77 percent) reason for their ill health is due to the nature of work that they perform in the organizations while 20 percent of the workers reason for ill health is due to hereditary factors. Only 3 percent of the workers ill health is based on personal habits. Further the habits of workers such as smoking, drinking, chewing tobacco, gutka, etc are also considered to assess their health aspects. Among all, 25percent of the workers have the habit of smoking and drinking, 20 percent have the habit of chewing tobacco, gutka, etc. and 55percent of the workers have no habits. An attempt was made to find out the exercising practice among the workers as the physical fitness is one of the significant factors that influence the health of the workers. About 58 percent of the workers have the habit of exercising regularly while 42 percent of the workers do not exercise. The study has focused mainly on three aspects viz., Knowledge, Attitude and Practice of the workers on the occupational safety and health factors involved at the workplace. Regarding knowledge, 43 percent of the workers have moderate level of knowledge where as 34 percent of the workers possess high level of knowledge on occupational diseases. It is clearly evident from the above evaluation that there is no significant impact of the knowledge on attitude and on practice of workers in reducing the risks of the occupational diseases. Nearly 23 percent of the workers with high level of knowledge had poor practice towards reducing the risks involved due to occupational diseases. Further, it is identified that the positive attitude of workers significantly influenced the practice levels of the workers in overcoming the occupational diseases. The food habits of the workers do impact their health in one way or the other. Thus, it is clear that type of food has significant impact on the diseases encountered by the workers which are in turn can be associated to their work related occupational diseases. Workers without any habits have not faced any neurological related diseases. This aspect very evidently -reveals that there is a highly positive significant impact of habits on the types of diseases encountered by the workers in the organizations. It is clear that doing exercise is also significantly influencing the diseases that are encountered by the workers. There are no workers who perform regular exercises who had ever faced cardiological related diseases.

The following suggestions are there by forwarded to impact the KAP of industrial workers of Rayalaseema region. Knowledge of the workers does not necessarily impact the attitude of the workers.

- The management have to take special interest to transform the knowledge of the workers into their attitude and there by their practices in reducing or preventing occupational diseases at workplaces.
- For this cause, managements have to take up intensive training programs to educate, create awareness among the workers regarding the occupational health and safety issues at work.
- A very strict, systematic and safety procedures to be followed by the management against workers for violating rules and regulations meant for their own safety. The workers knowledge should reflect in their attitude and in their practices at workplaces to minimize the risk of occupational diseases. Because occupational diseases not only impact the health and well being of the workers but also the overall productivity and efficiency of the organization.

## V. CONCLUSION

Occupational health and safety are of great concern. An *occupational disease* is any disease contracted primarily as a result of an exposure to risk factors arising from work activity. *Work-related diseases* have multiple causes, where factors in the work environment may play a role, together with other risk factors, in the development of such diseases. The global burden of disease from major occupational risks, such as injuries, airborne exposures, carcinogens, ergonomic stressors, noise and other specific risks are few major factors. Hence, the other related factors from the point of workers such as personal habits, age, gender, type of house, education, type of occupation and other organizational factors that impact the health and risk factors attributing to occupational diseases of the workers. The conclusions drawn specify that there is no significant impact of the socio-demographic factors on the KAP (Knowledge – Attitude – Practice) of the workers. The study insists on the growing concern of industrial workers health and safety and suggests appropriate measures to enhance the KAP (Knowledge –Attitude – Practices) among industrial workers to protect themselves from harmful and threatening occupational diseases at workplaces.

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