

# A Study on Causes of Work Stress among Tile Factory Workers in Kannur District in Kerala

Jins Joy. P\*, Dr. R. Radhakrishnan\*\*

\*Research Scholar, Bharathiar University, Coimbatore – 641 046

\*\* Principal, Anbu Arts & Science College, Komarapalayam, Namakkal District, Tamil Nadu

**Abstract-** Stress is a universal element at work and all human beings have to face stress in all walks of life. The consequences of stress are a deviation from the existing physical and psychological condition of human life. The aim of this paper is to identify the cause of work stress among tile factory workers in Kannur district in Kerala. The research design undertaken for the study was descriptive research and convenience sampling method is used. The sample size consists of 100 workers, 50 male workers and 50 female workers selected from 3 tile factories in Kannur District. Henry Garrett ranking method and Mann – Whitney test was used to analyze the data collected and the results of the study.

**Index Terms-** Stress, Quality of work life

## I. INTRODUCTION

The study of stress is important both for individuals and organizations because of its deleterious effects. Modern life is full of stress, and stress is the pressure people feel in life due to their reaction to the situations. No one is immune to stress. Stress is a non specific response to demands from environment and it results in physical, psychological and behavioural deviations of people. Stress can be managed at both individual level and organizational level. Individual approach to manage stress includes exercise, behaviour control, proper diet, meditation, relaxation etc. Organizational strategies to manage stress include clarity of employee roles, procedures, policies and rules, changes in organizational structure, counselling, spread of message of evil effects of stress and so on. Stress is dangerous. Stress management technique is attracting more and more people. Everybody in the workplace experiences some kind of frustrations, tensions or anxieties in relation to the general work environment. Stress is a part of every employee's life. However, where stress is excessive, personal and organizational performance is at best damaged. All the worst, stress is a liability and threat to the survival of an organization. Stress can have serious consequences that affect both health and work performance. In terms of health, the current belief among many medical practitioners is that 50 or 70% of all physical illness are related to stress. Stress can cause depression, irritation, anxiety, fatigue, lowered self-esteem and reduced job satisfaction. Sustained over a longer period, stress can lead to the use of drug or alcohol.

## II. STATEMENT OF THE PROBLEM

Tile factory workers are blue collar workers. Majority of them are privately employed and are unorganized. They belong to the lower strata of socio economic groups and are highly stressed. Researchers and media are often interested to take up the problems of middle or high income groups for publicity and acceptance. So, the researcher took it as a challenge to conduct a study on this topic and bring out the problems of people who are mainly unorganized and are often denied of their rights. Since the result of the survey was rather shocking, the researcher felt that the need to depict the poor state of their life and bring it to the notice of the authorities concerned. Factory workers develop a wide variety of occupational illness during their working lives, manifested in physical and psychological stress. Blue collar workers perform manual labour and generally earn low wages. Often blue collar work is associated with lack of education, but this is not the case. Many blue collar jobs require advanced skills, technical training, or years of apprenticeship. For many workers that are considered blue collar, dealing with work stress is a constant part of their daily life. Faced with shrinking job market, possible layoffs and factory closings, blue collar workers often worry about their financial future. Depending on their position, blue collar workers often face a unique set of stressors.

## III. LITERATURE REVIEW

Meneze's (2005) studies found that a mainstream group of employees articulated that their organizations did not care for its employees and sometimes employees don't like to work with their organizations indicating high level of stress among them and majority were between the age brackets of 26 – 35 years. Misfit with organization, no part in decision making, were reported main cause of stress as well as no control over work environment, personality traits, lack of relaxation along with ambiguous rules affect employees performance. The importance of stress is highlighted nowadays by the employers to manage and reduce stress through practical guidelines in public sector but not in private organizations. Noblet, Andrew; LaMontagne, Anthony D. (2006) observes the enormous human and economic costs associated with occupational stress suggested that initiatives designed to prevent and /or reduce employee stress should be high on the agenda of Workplace Health Promotion (WHP) programme. The aim of the second part of this study is a detailed description of what the comprehensive approach to stress prevention/reduction looks like in practice and to examine the means by which WHP can help to develop initiatives that

address both the sources and the symptoms of job stress. Upson, John W.; Ketchen Jr., David J.; Ireland, R. Duane (2007) in their article titled "Managing Employee Stress: A Key to the Effectiveness of Strategic Supply Chain Management" focused their research on supply chain activities and studied the dangerous role of stress among supply chain members. They have also given measures to address this stress. The researchers concluded that by using the suggested initiatives, both employees' quality of life and the organization's performance can improve. Kopp, Maria S; Stauder, Adrienne; Purebl, Gyorgy; Janszky, Imre; Skrabski, Arpad (2008) in their research paper titled "Work stress and mental health in a changing society" to indicate that a cluster of stressful working and psychosocial conditions are responsible for a substantial part of variation in self reported mental and physical health with work related factors. D.R. Rutter and M.J. Lovegrove (2009) in their research titled "Occupational stress and its predictors in radiographers", they conducted a study to establish the level of occupational stress in UK NHS radiographers, and to examine its causes. The result was significantly lower in the mammography group than in the others. However, the junior staff reported low level stress due to role ambiguity, role conflict and work problems and the superintendents reported a high level stress; but the effects were sometimes buffered by social support from colleagues. Rahim (2010), attempted his study with increasing psychological problems i.e. stress, strain, anxiety, depression, sleep disorders, etc. This situation, in which the employees have little or no sense of identification with their job, can cause an individual looking for another job or don't perform efficiently their own.

David Neary (2011) examines work-related stress and rehabilitation in the light of the introduction of Stress Management Standards in the UK in 2004. The Management Standards are outlined and the relevant literature on good practice in stress and rehabilitation is reviewed to provide a context for empirical research conducted with human resource practitioners in organizations. This view from the workplace provides insights on the issues faced, especially in the public services, when managing stress and rehabilitation. These include the role played by stress in people's personal life, the limitations of line management and the role of General Practitioners. Ramezan Jahanian, Seyyed Mohammad Tabatabaei and Behnaz Behdad (2012) observed that stress is a fact in our daily life. When a person needs help, it means the person feels physically and emotionally disabled. Most people believe that their capacity and capabilities are so little to encounter high level of stress. Today, with progress in all respects, human is facing new challenges in many different fields as if progress in turn creates new problems. Over a century, the nature of working has been changed widely, and still these changes are in progress. Following these changes, number of illnesses has been increased, morality and human aspects are faded and new problems are occurred every day, so that we are facing job stress which called "illness of the century". Catherine Chowwen (2013) deals in her research that the influence of joint and independent predictions of emotional intelligence, perceived leadership style and job characteristics on occupational stress among bank workers in South East, Nigeria. The method adopted is a survey involving 210 male and female bankers. Five hypotheses were tested with two fully and three partially confirmed. Emotional intelligence,

perceived leadership style and job characteristics significantly and jointly predicted stress, in addition, those with high emotional intelligence reported lower stress experience compared with those with low level of emotional intelligence. This lies in the identification of the factors that are central to a person controlling his / her stress and suggesting strategies to promote the stress reduction process. Employers can help employees change their perceptions of stress, provide them with strategies to help them cope and improving their confidence in their ability to do so.

#### **Workplace factors causing stress**

In addition to repetitive tasks, other factors in the workplace that cause stress among blue collar workers in tile factories include:

**A: Work Related:** Constant exposure to dust and smoke, Insufficient lighting and ventilation, boring repetitive work, Sustained over or under load, Inflexible work schedule, Poor pollution control, Dual career, Significant risk to health and safety.

**B: Organization Related:** Authoritarian style of the management, Lack of organizational information, Malfunctioning of employee assistance programmes, Poor role in establishing rules of conduct, Poor employee oriented policies, Conflicting priorities, No role in decision making.

**C: Relationship at work:** Trouble with boss, Conflict with supervisors, Non co-operative colleagues, Social or physical isolation, Harassment and bullying, unduly critical of others, Conflict with the organization goal, Low self esteem.

**D: Career Development:** Career uncertainty, Frustration over career ambition, Threat to job security, Lack of appreciation, Lack of recognition, Threat of redundancy, Restructuring of role, Limited opportunity.

#### **IV. OBJECTIVES OF THE STUDY**

1. To identify and compare the causes of work stress among the tile factory workers at gender level.
2. To suggest better strategies to overcome work stress

#### **RESEARCH METHODOLOGY**

Research methodology is a way to systematically solve the research problems. It may be understood as a science of studying how research is done scientifically. It includes the overall research design, the sampling procedure, data collection method and analysis procedure. In this study, Descriptive research was adopted. Descriptive research study includes surveys and fact-finding enquiries of different kinds, which help the researchers to describe the present situation.

#### **SAMPLING DESIGN**

Sampling design is to clearly define set of objects, technically called the universe to be studied. A sampling design is a definite plan for obtaining a sample from the given population.

#### **SAMPLE SIZE & SAMPLING METHOD**

The sample size consists of 100 respondents, 50 male workers and 50 female workers selected from 3 tile factories in Kannur District. Convenience sampling method under Non-Probability sampling was employed in selecting the sample.

In order to ensure greater clarity and validity pre-testing was done with limited number of respondents and necessary modifications were made in the interview schedule. With the objectives in mind the researcher collected first hand information about the universe through pilot study. The pilot study helped the researcher to narrow down the scope of the study and facilitated the selection of samples.

#### **DATA COLLECTION METHODS**

The present study covers both primary as well as secondary data.

##### **A) PRIMARY DATA**

For the study both primary as well as secondary information were collected. Interview schedule method was used to collect the primary data. To collect information in deepest level, observation and guidance methods also were employed.

##### **B) SECONDARY DATA**

Secondary data were collected from organizations' records, documents, 'website', company's annual reports, muster roll, brochure, Journals etc

##### **TOOLS FOR ANALYSIS**

Data collected through Research Schedule were presented in a master table. From the master table sub tables were prepared. In order to do analysis and interpretation of the data simple statistical tools like Henry Garrett Ranking method and Mann – Whitney test are used. Analysis was done using PAST 2.17 software of University of Oslo. The following formula can be used for calculating the Henry Garrett Ranking Method.

$$\text{Henry Garrett Ranking Method} = \frac{100(R_{ij}-0.5)}{N_j}$$

Where,  $R_{ij}$  is Rank given for  $i$ th item  $j$ th individual  
 $N_j$  is Number of items ranked by  $j$ th individual

### HENRY GARETT RANKING METHOD

CAUSES OF WORK STRESS AMONG WORKERS IN TILE FACTORIES IN KANNUR DISTRICT IN KERALA							
Sl. No.	Factors	MALE			FEMALE		
		Total Score	Mean Score	Rank	Total Score	Mean Score	Rank
1	Poor physical Environment	2675	53.5	2	2600	52	5
2	No role in decision making	2402	48.04	7	2236	44.72	9
3	Dual career	2642	52.84	3	2773	55.46	1
4	Threat to job security	2550	51	4	2253	45.06	8
5	Boring repetitive work	2256	45.12	8	2340	46.8	7
6	Personal / Family problems	2466	49.32	6	2672	53.44	3
7	Frustration over career ambition	2255	45.1	9	2447	48.94	6
8	Social / Physical Isolation	2483	49.66	5	2644	52.88	4
9	Financial Problems / Low wages	2798	55.96	1	2680	53.6	2
10	Harassment and bullying	2213	44.26	10	2159	43.18	10

MANN WHITNEY U TEST		
Factor	Ranking Male	Ranking Female
1	2	5
2	7	9
3	3	1
4	4	8
5	8	7
6	6	3
7	9	6
8	5	4
9	1	2
10	10	10
Males: N = 10 Mean Rank = 5.25		Females: N = 10 Mean Rank = 5.25

**H0: There is no significant difference between the rankings of male and females tile factory workers for the factors causing stress at work.**

**H1: There is significant difference between the rankings of male and female tile factory workers for the factors causing stress at work.**

U= 50 and p value at 5% level of significance was found to be 0.9697

As p value is greater than 0.05 at 5% level of significance, we accept the H0.

## V. FINDINGS OF THE STUDY

A descriptive study was conducted on causes of work stress among tile factory workers in Kannur district in Kerala. Out of the 100 samples 50 male workers and 50 female workers were selected from 3 tile factories in Kannur district. In the pilot study, factors like poor physical environment, no role in decision making, dual career, threat to job security, boring repetitive work, personal / family problems, frustration over career ambition, social / physical isolation, financial problems / low wages, harassment and bullying have been given in the Interview schedule.

On the basis of the outcome of the pilot study, only factors like poor physical environment, no role in decision making, dual career, threat to job security, boring repetitive work, personal / family problems, frustration over career ambition, social / physical isolation, financial problems / low wages, harassment and bullying have been used in the final Interview schedule. Male and female respondents are instructed to indicate the importance of the causes of work stress factor by giving rank 1 to the most important factor, rank 2 the second important factor and so on. Based upon the ranks assigned by the causes of work stress among the workers at gender level. To find the most significant factor cause of work stress among workers in tile factories Henry Garrett Ranking Technique is employed. It is

calculated as percentage score and the scale value is obtained by employing the scale conversion Table given by Henry Garrett.

The Percentage Score is calculated as

$$\text{Percentage Score} = \frac{100(R_{ij}-0.5)}{N_j}$$

Where,  $R_{ij}$  is Rank given for  $i$ th item  $j$ th individual  
 $N_j$  is Number of items ranked by  $j$ th individual

The percentage score for each rank from 1 to 10 are calculated. The percentage score thus obtained for all the ten ranks are converted into scale values using Scale Conversion Table given by Henry Garrett. The scale values for first rank to tenth rank is 81, 70, 63, 57, 52, 47, 42, 36, 29 and 18 respectively. The score value (fx) is calculated for each factor by multiplying the number of respondents (f) with respective scale values (x). The total scores are found by adding the score values (fx) of each rank for every factor. The mean score is then calculated to know the order of preference given by the respondents for the factors. Based on the mean score, the overall ranks are assigned for each. The ranking analysis of the factors causes of work stress among workers in tile factories in Kannur district in Kerala Henry Garrett's ranking shown in Table 1 & 2.

**Table 1 (Male workers):** It is clear that male workers are given more importance to the factor that financial problems / low wages (55.96) followed by poor physical environment (53.5), Dual career (52.84), Threat to job security (51), Social / Physical isolation (49.66), Personal / family problem (49.66), No role in decision making (48.04), Boring repetitive work (45.12), Frustration over career ambition (45.1), Harassment and bullying (44.26).

**Table 2 (Female workers):** It is clear that female workers are given more importance to the factor that Dual career (55.46), Financial problems / low wages (53.6), Personal / family problems (53.44), Social / physical isolation (52.88), Poor physical environment (52), Frustration over career ambition (48.94), Boring repetitive work (46.8), Threat to job security (45.06), No role in decision making (44.72), Harassment and bullying (43.18).

Ranking Male and female Mann – Whitney Test (Past 2.17 – (University also) used.

Male - N = 10, Mean Rank = 5.25, u = 50, p = 0.9697 and Female N = 10, Mean Rank = 5.25 Accept Null hypothesis. As per the 'p' value > 0.05 at 5 % level of significance Null hypothesis is accepted.

## VI. SUGGESTIONS

Learning ways to cope with work stress is essential for the workers' physical, mental and emotional health and well being. So as to enable them to perform their work duties clearly and confidently. Hence, the organization must introduce Employee Assistance Programmes (EAPs) and workshops to enable its employee to cope with stress successfully. EAP should include counseling employees who seek assistance on how to deal with alcohol and drug abuse, managing personal finances, handling conflicts at workplace, dealing with marital and other family problems and coping with health problems. It should be ensured that work load is in line with the workers capabilities. Workers should be given opportunities to participate in discussions and actions affecting their job. Workers should be given opportunities for social interaction and to form support groups among themselves. As a general rule, actions to reduce work stress should give top priority to organizational change to improve working conditions.

## VII. CONCLUSION

Stress in the workplace has become the black plague of the present century. The productivity of the workforce is the most decisive factor as far as the success of an organization is concerned. So, the management should ensure that their workforce are not affected by things like their workplaces' physical condition, degree of chaos, ventilation, lights, noise, cleanliness and temperature to name a few. Work stress has multiple causes, so it has to have multiple solutions. So, the organization should take steps to introduce a well designed stress reduction programme addressing three levels.

- (a) Individual: - Strategies designed to help the individual employee cope more effectively with stress.
- (b) Small groups: - Strategies indented to help workers develop more social support on the job and at home.
- (c) Organizational: - Strategies directed toward improving the conditions of work.

## REFERENCES

- [1] Catherine Chovwen, "Occupational stress among bank employees in South East, Nigeria", Global Advanced Research Journal of Management and Business Studies, Vol. 2(2), pp. 114-119, February, 2013.
- [2] David Neary, "Managing Stress and Rehabilitation: A View from the Workplace", Social Policy and Society, Vol.6, Issue 03, July 2011, pp.309-320.
- [3] Rahim, S.H. (2010), "Emotional Intelligence and Stress: An Analytical Study of Pakistan Banks", International Journal of Trade, Economics and Finance, Vol. 1, No. 2, pp.195-201.
- [4] Ramezan Jahanian, Seyyed Mohammad Tabatabaei and Behnaz Behdad, "Stress Management in the Workplace", International Journal of Academic Research in Economics and Management Sciences, Vol.1, No.6, November 2012, ISSN: 2226-3624.
- [5] R. Rutter and M.J. Lovegrove, "Occupational stress and its predictors in radiographers", Vol.14, Issue 2, pp.138-143, 2009.
- [6] Kopp, Maria S; Stauder, Adrienne; Purebl, Gyorgy; Janszky, Imre; Skrabski, Arpad, "Work stress and mental health in a changing society", European Journal of Public Health. 18(3):238-244, June 2008.
- [7] Meneze, M.M., (2005). The impact of stress on productivity at Evaluation Training and development practices: Sector Education and Training Authority.
- [8] Noblet, Andrew; LaMontagne, Anthony D. "The role of workplace health promotion in addressing job stress", Health Promotion International, Dec2006, Vol. 21 Issue 4, Pp.346-353.
- [9] Upton, John W., Ketchen Jr., David J.; Ireland, R. Duane. "Managing Employee Stress: A Key to the Effectiveness of Strategic Supply Chain Management", Organizational Dynamics, 2007, Vol.6, Issue1, pp78-92.

## AUTHORS

**First Author** – Jins Joy. P, Research Scholar, Bharathiar University, Coimbatore – 641 046, Email id: jinsjoy.p@gmail.com

**Second Author** – Dr. R. Radhakrishnan, Principal, Anbu Arts & Science College, Komarapalayam, Namakkal District, Tamil Nadu

**Table 1 : Causes Of Work Stress Among Tile Factory workers in Kannur District in Kerala – Sample size -Male – 50**

	<b>Ranks</b>		<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>	<b>VI</b>	<b>VII</b>	<b>VIII</b>	<b>IX</b>	<b>X</b>	<b>Total</b>	<b>Total</b>	<b>Mean</b>	<b>Rank</b>
	<b>Scale</b>		<b>81</b>	<b>70</b>	<b>63</b>	<b>57</b>	<b>52</b>	<b>47</b>	<b>42</b>	<b>36</b>	<b>29</b>	<b>18</b>		<b>Score</b>	<b>Score</b>	
	<b>Factors</b>															
1	Poor physical	f	7	10	4	6	4	1	6	2	5	5	50	2675	53.5	2
	Environment	fx	567	700	252	342	208	47	252	72	145	90				
2	No role in	f	5	6	4	5	6	2	4	3	8	7	50	2402	48.04	7
	decision making	fx	405	420	252	285	312	94	168	108	232	126				
3	Dual Career	f	9	5	6	3	4	7	2	6	3	5	50	2642	52.84	3
		fx	729	350	378	171	208	329	84	216	87	90				
4	Threat to job security	f	6	3	5	7	5	4	6	8	4	2	50	2550	51	4
		fx	486	210	315	399	260	188	252	288	116	36				
5	Boring repetitive	f	2	6	4	3	5	3	7	6	8	6	50	2256	45.12	8
	Work	fx	162	420	252	171	260	141	294	216	232	108				
6	Personal / Family	f	5	3	5	5	7	8	4	3	5	5	50	2466	49.32	6
	Problems	fx	405	210	315	285	364	376	168	108	145	90				
7	Frustration over	f	4	2	4	5	6	3	6	5	9	6	50	2255	45.1	9
	Career ambition	fx	324	140	252	285	312	141	252	180	261	108				
8	Social / physical	f	2	7	8	3	5	8	2	8	2	5	50	2483	49.66	5
	Isolation	fx	162	490	504	171	260	376	84	288	58	90				

9	Financial problems	f	9	6	7	8	2	4	5	3	4	2	50	2798	55.96	1
	/ Low wages	fx	729	420	441	446	104	188	210	108	116	36				
10	Harassment and	f	1	2	3	5	6	10	8	6	2	7	50	2213	44.26	10
	Bullying	fx	81	140	189	285	312	470	336	216	58	126				
	Total	$\Sigma f$	50	50	50	50	50	50	50	50	50	50				

Note: x = Scale value, f = number of respondents, fx = score

<b>Table 2 : Causes Of Work Stress Among Tile Factory workers in Kannur District in Kerala –Sample size -Female -50</b>																
	<b>Ranks</b>		<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>	<b>VI</b>	<b>VII</b>	<b>VIII</b>	<b>IX</b>	<b>X</b>	<b>Total</b>	<b>Total</b>	<b>Mean</b>	<b>Rank</b>
	<b>Scale</b>		<b>81</b>	<b>70</b>	<b>63</b>	<b>57</b>	<b>52</b>	<b>47</b>	<b>42</b>	<b>36</b>	<b>29</b>	<b>18</b>		<b>Score</b>	<b>Score</b>	
	<b>Factors</b>															
1	Poor physical	f	7	3	5	7	4	6	7	4	5	2	50	2600	52	5
	Environment	fx	567	210	315	399	208	282	294	144	145	36				
2	No role in	f	2	4	2	6	8	5	3	5	9	6	50	2236	44.72	9
	decision making	fx	162	280	126	342	416	235	126	180	261	108				
3	Dual Career	f	8	7	9	4	2	5	6	3	3	3	50	2773	55.46	1
		fx	648	490	567	228	104	235	252	108	87	54				
4	Threat to job security	f	5	4	3	2	4	5	6	7	6	8	50	2253	45.06	8
		fx	405	280	189	114	208	235	252	252	174	144				
5	Boring repetitive	f	2	4	6	1	8	7	3	9	8	2	50	2340	46.8	7
	Work	fx	162	280	378	57	416	329	126	324	232	36				
6	Personal / Family	f	8	6	7	4	7	2	5	2	3	6	50	2672	53.44	3
	Problems	fx	648	420	441	228	364	94	210	72	87	108				
7	Frustration over	f	4	7	3	5	2	4	7	9	3	6	50	2447	48.94	6
	Career ambition	fx	324	490	189	285	104	188	294	324	87	162				
8	Social / physical	f	5	8	4	9	5	4	5	3	2	5	50	2644	52.88	4

	Isolation	fx	405	560	252	513	260	188	210	108	58	90				
9	Financial problems	f	6	5	7	8	3	9	3	2	4	3	50	2680	53.6	2
	/ Low wages	fx	486	350	441	456	156	423	126	72	116	54				
10	Harassment and	f	3	2	4	4	7	3	5	6	7	9	50	2159	43.18	10
	Bullying	fx	243	140	252	228	364	141	210	216	203	162				
	Total	$\Sigma f$	50	50	50	50	50	50	50	50	50	50				

Note: x = Scale value; f = Number of respondents; fx = Score