Journal of Positive School Psychology http://journalppw.com
2022, Vol. 6, No. 5, 7530–7538

An Investigation of the Work Related Stress and its Factors of Women Employees of the Textile Industry in Visakhapatnam, India

Jayasri Puli[1], Dr. Srilalitha Sagi[2]

[1]Gitam Institute of Management, Gitam University, Visakhapatnam-530045, India
ORCID: https://orcid.org/0000-0002-5504-1075
[2]Associate Professor, Gitam Institute of Management, Gitam University, Visakhapatnam-530045, India

E-mail: E-mail: [1]jai2009sri@gmail.com, [2]gsagi@gitam.edu

Abstract

Work related stress (WRS) is a disturbing health problem which would result in serious socio-economic consequences and hence needs to be prevented with appropriate measures. The employees of any working place have great impact of the environment they work in their physical and mental wellbeing. The study was conducted in Visakhapatnam city which is one of the foremost industrial town of Andhra Pradesh, India. Analysis of multivariate of WRS in relation to all the variables, we found rotating working times, lower social supports were statistically significant. The odds of WRS was 2-fold among rotating workers (AOR=2.24, 95% CI=1.58–3.28) as compared to their counterparts. Lower social support (AOR=3.84, 95% CI=2.98–5.31), and moderate social support (AOR=3.16, 95% CI=1.85–4.98) having more risk associated factors for work-related stress in compare to good social support. Ultimately work related stress impact the women employees' organizational productiveness. So work related stress should be monitored at the very beginning to avoid reduction of productivity, any kind of injury or accident and cost of injured workers.

Key words: Work related stress, Women employees, Social support, Visakhapatnam

1. INTRODUCTION

Work related stress (WRS) is a disturbing health problem which would result in serious socio- economic consequences and hence needs to be prevented with appropriate measures. (Akinboye, 2002; Houtmen, 2007). WRS is defined by the World Health Organization (1997), as the reaction of the employees expressed when workload and pressure lack of correspondence to their skill and abilities challenging their aptitude. The employees of any working place have great impact of the environment they work in their physical and mental wellbeing (Gabriel, 2000). In developing countries, work related stress adds much to the overall increasing of sickness with regards to its disadvantageous emotional, mental, and physical impact of workers.

Either employees or the employers of the contemporary working environment have started ignoring the effects of WRS in their day to day life to meet up the competition. Selye (1936) for the first time wrote about stress and its physical and psychological responses to bad circumstances or influences. According to him, the term stress is as old as human civilization. The word stress was derived from the Latin word "*Stringere*", means limitedness or beyond human capacity or capability. Newman and Beehr (1979) in their writings about stress in the workplace mentioned it as a situation in which job-related pressure cause the worker to digress from normal function because of his or her changing physical or psychological state. Later on, Loghan and Ganster (2005) considered stress as a stimulus-response to the worker's needs

© 2022 JPPW. All rights reserved

and abilities. According to some researchers, organizational work culture is an influencer of stress formation because sources of stress rely on the things done in the organizational work culture (Lu et al., 2007). In general stress can be used to describe the pressure people face in life (Jeyaraj, 2013; Nagra, 2013; Hopkins, 2014) either from home or workplace environment. But it has been seen that a certain amount of job stress improves productivity and effectiveness while working, so notably not all stressors in the organization are harmful (Larson, 2004).

Many researchers already had reported that working environments such as nature of work and socio -cultural dynamics of the organizations have various impacts on the employees stress and its magnitude of severity (Belete et al., 2020). Factors affecting the employees of textile industries were changing or shifting time of work(von Treuer et al., 2014), alcohol and use of other substances(Biron et al., 2011), support of the society((Tennant, 2001 and Bartram et al., 2004)), profession of the employees and their age (Kitronza and Mairiaux, 2015). Work related stress and their impacts to the employees is a real concern of researchers but very little documentation were done related to the severity and its factors of work related stress of women employees in the textile factories. In our present study, our aim of the study was to access the impacts of work related stress and its associated factors of women employees and its management practices of textile industry of Visakhapatnam

2. MATERIALS AND METHODS

Study Design and Period

Study Setting

The study was conducted in Visakhapatnam city that is one of the foremost industrial town of Andhra Pradesh, India. Three selected textile industry such as Hirawat Textiles, Mutyala Garments and Voltas fashion were situated in Apearle park, Autonagar spreading six acre, fourteen acre and five acre having employees approx. 450, 525 and 350 respectively. Hirawat Textiles usually deals in making uniforms, whereas Mutyala Garments involves in making wearing apparel. Voltas fashion involves in making large choice of formal and casual shirts, pants, denims, sportswear for men, women and kids, custom built to order.

Data collection and compilation

For the present study, the women employees of selected textile industries were interviewed face to face based on the questionnaire following Etefa et al., (2018); AAW (2009); Karasek et al., (1998) and NIOSH (2011). The questionnaire was prepared to assess to all the required parameter such as socio-economic, physical and psychosocial, organizational and work- related stress. One hundred women employees from each of the selected industry were enquired related to their work related stress and its impacts. The survey was done during the months of March, 2020 to April, 2021. Total sample size was 300. The information gathered were later on compiled in tabular form.

Analysis of data

Using Binary logistics regression, analysis of bivariate and multivariate were done to see the relationship between each variable and their outcome variable. Hosmer-Lemeshow statistics ($P>0.05$) were done for goodness of fit following Bendel and Afifi, 1977. By odds ratio with 95% CI were used to see the direction and statistical association of various factors and work related stress ($P<0.05$ considered significant in our study).

3. RESULTS

Socio-demographic characteristics of female employees

The response rate was 100% (300/300). Of the respondents, 217 (72.3%) were married and 83(27.7%) were unmarried. 222 (74%)

© 2022 JPPW. All rights reserved

employees having low wealth followed by medium wealth 62(20.7) least were relatively having high wealth 16(5.3%). 260 (86.7%) employees were living with their family beside only a few employees, 40(13.3%) reside without family. Out of 300 women employees most of them, 257(85.7%) were temporary employees, only 43(14.3%) were permanent employees (Table 1).

Table 1: Socio-demographic characteristics of female employees in three Textile/ Garment industry

Variables	Category	Hirawat Textiles	Mutyala Garments	Voltas Fashion	Total	Percent (%)
Age	18-25	15	24	37	76	25.3
	26-35	48	31	31	110	36.7
	36-45	35	30	20	85	28.3
	>45	2	15	12	29	9.7
Marital Status	Unmarried	17	31	35	83	27.7
	Married	83	69	65	217	72.3
Relative wealth	Low	74	81	67	222	74
	Medium	21	16	25	62	20.7
	High	5	3	8	16	5.3
Current living condition	With family	87	91	82	260	86.7
	Alone	13	9	18	40	13.3
Type of employments	Permanent	10	19	14	43	14.3
	Temporary	90	81	86	257	85.7

Cumulative organizational and job-related characteristics of female employees

Among the 300 employees who talked about various WRS at their workplace, 183 (61%) had reported good organizational support, 178 (59.3%) reported comfortable working environment, 212 (70.7%) reported unsatisfactory salary offered, 135(45%) employees faced injury at the workplace, 77 (25.7%) employees reported for scare resources, 82 (27.3%) were faced work place violence, 114 (38%) employees faced conflict of interest in their workplace and most importantly 257 (85.7%) were having job security stress (Table 2).

Table 2: Cumulative organizational and job-related characteristics of female employees in three Textile/ Garment industry

Variables	Category	Frequency	Percent (%)
Organizational support	Good	183	61
	Poor	117	39
Working environment	Comfortable	178	59.3
	Uncomfortable	122	40.7
Working hours per week	≤48 hours	202	67.3
	>48 hours	98	32.7

© 2022 JPPW. All rights reserved

Salary offered	Satisfied	88	29.3
	Unsatisfied	212	70.7
Overtime working hours per month	≤ 20 hours	182	60.7
	>20 hours	118	39.3
Injury at workplace	No	165	55
	Yes	135	45
Resources	Enough	223	74.3
	Scare	77	25.7
Workplace violence	No	218	72.7
	Yes	82	27.3
Shift-work	No (fixed)	202	67.3
	Yes (rotation)	98	32.7
Conflict at workplace	No	186	62
	Yes	114	38
Time pressure	Low	35	11.7
	High	265	88.3
Job security	Poor	257	85.7
	Good	43	14.3
Safety and health training	No	287	95.7
	Yes	13	4.3
Work experience	≤5 years	249	83
	>5 years	51	17

Factors Associated with Work-Related Stress among female employees

Table 3 summarizes the results of bivariate and multivariable analyses for associations with work-related stress. The factors which showed significant association with WRS were social support, violence in workplace, shifting of working time, salary satisfaction, overtime working hours per month, workplace injury, and support of their organization (Table 3).

Analysis of multivariate of WRS in relation to all the variables, we found rotating working times, lower social supports were statistically significant. The odds of WRS was 2-fold among rotating workers (AOR=2.24, 95% CI=1.58–3.28) as compared to their counterparts. Lower social support (AOR=3.84, 95% CI=2.98–5.31), and moderate social support (AOR=3.16, 95% CI=1.85–4.98) having more risk associated factors for work-related stress in compare to good social support.

Table 3: Factors Associated with Work-Related Stress among female employees in three Textile/ Garment industry

Variables	Category	Work-Related Stress		COR (95% CI)	AOR (95% CI)
		Yes	No		
Workplace violence	No	57	161	1	1
	Yes	42	40	1.1(0.65-1.84)	1.26(0.95-2.05)
Shift-work	No (fixed)	85	117	1	1
	Yes	57	41	1.34 (0.97-	2.24 (1.58-

© 2022 JPPW. All rights reserved

	(rotation)			2.15)	3.28)**
Salary offered	Unsatisfied	171	41	0.25(0.14-0.64)	0.52(0.35-0.94)
	Satisfied	11	77	1	1
Overtime working hours per months	≤ 20 hours	45	137	1	1
	>20 hours	31	87	1.36 (1.08-1.95)	1.41 (1.14-1.89)
Organizational support	Poor	157	26	1.28 (0.89-1.79)	1.52 (1.04-2.23)
	Good	30	87	1	1
Injury at workplace	No	17	148	1	1
	Yes	121	14	0.49 (0.34-0.74)	0.98 (0.78-1.31)
Social support	Poor	174	25	3.98 (3.45-5.98)	3.84 (2.98-5.32)***
	Moderate	32	19	3.25 (1.95-5.25)	3.16 (1.85-4.98)**
	High	12	38	1	1

Notes: 1.00 = Reference, **P-value less than 0.01 and ***P-value less than 0.001.

4. DISCUSSION

In present study, the overall prevalence of work-related stress was 40.7% (95% CI=35.7–45.7). Finding of this study is similar to the other works carried in some other parts of the worlds, i.e., West Sussex (43%)(Phillips et al., 2007) Dukem, Ethiopia (40.4%)(Etefa et al., 2018). But in Congo (28%) (Kitronza and Mairiaux, 2015), Thailand (27.5%)(Sein et al., 2010), Iran (21.3%)(Soori et al., 2008) it was found that work related was lower in compare to our study. In particular, Bangalore city (26%)(Anandi et al., 2017) and India(25%)(Mohan et al., 2008) in general having low work related stress.

The reason for these fluctuations of work related stress in different parts of the world may because of size of the sample, used tools for the study, population of the study area. In developed country access to health facility, available safety precaution and regular training and specially better socio-economic conditions are the probable reason for these variations(Jamison et al., 2015; Belete et al., 2020).Present study also found that operating setting or working environment and shifting of working time were also associated with WRS, these might be because of impacts of environments in the minds of the employees. In comparison to their counter parts, shifting employees are more vulnerable to the work related stress (Ahasan et al., 2002; Srivastava, 2010; Agyemang et al., 2014; Ma et al., 2015; Lin et al., 2015) and our results are also depicting the same, this is because more stress is faced by the shifting employees(Sharma et al., 2017) due to the changing of biological clock which might result in varied psychological and physiological problems(James et al., 2017) than the fixed time employees.

Our finding also demonstrated that poor and moderate social support caused major work related stress which is also seen by some other researchers of other parts of the world (Moreau et al., 2004; Sein et al., 2010). Poor social supports have negative impacts on quality life of the women employees (Ren et al., 2018; Wang et al., 2018 and Alsubaie et al., 2019).Psychological support from the society and the organization are important for women employees in workplace because these have significant contribution

© 2022 JPPW. All rights reserved

to their mental and physical success from job stress (Lambert et al., 2016).

Management approaches to control work related stress

From our study, we noted out some key aspect to regulate work related stress by the authority. Management should take initiative to organize innovative courses for working women employees to scale back stress. To alleviate the stress, industry has to give more focus on stress relief programs. Management ought to encourage their employees by giving appraisal on time to time basis such as promoting temporary employees to permanent position, appreciation and reward for achievements etc. Social and emotional support should be created accessible to working women employees to scale back the stress level.

5. CONCLUSION

Work related stress is a growing problem particularly women employees of an organization. In our study also we have found that majority of women employees are facing WRS of various magnitude. Shifting workers and lower socially supported were more vulnerable to the work related stress because of mental sickness and lack of job security. Ultimately work related stress impact the women employees' organizational productiveness. So work related stress should be monitored at the very beginning to avoid reduction of productivity, any kind of injury or accident and cost of injured workers.

6. REFERENCES

[1] Agyemang, C. B., Nyanyofio, J. G., & Gyamfi, G. D. (2014). Job stress, sector of work, and shift-work pattern as correlates of worker health and safety: a study of a manufacturing company in Ghana. *International Journal of Business and Management*, 9(7), 59. doi:10.5539/ijbm.v9n7p59

[2] Ahasan, R., Mohiuddin, G., & Khaleque, A. (2002). Psychosocial implications of shift work: A case study. *Work Study*. 51(3):116–20. doi:10.1108/00438020210424244

[3] Akinboye, J. O., Akinboye, D. O., & Adeyemo, D. A. (2002). Coping with stress in life and workplace. *Ibadan: Stirling-Horden Publishers*.

[4] Alsubaie, M. M., Stain, H. J., Webster, L. A. D., & Wadman, R. (2019). The role of sources of social support on depression and quality of life for university students. *International Journal of Adolescence and Youth*, *24*(4), 484-496. doi:10.1080/02673843.2019.1568887

[5] Anandi, B. S., Rajaram, D., Aravind, B., Sukumar, G. M., & Radhika, K. (2017). Work-related stress assessment among a garment factory employee in Bangalore suburban locality. *Int J Community Med Public Health*, *4*(10), 3870-3876. doi:10.18203/2394-6040.ijcmph20174266

[6] Attitudes in the American Workplace VII. *The Workplace Stress Scale*. Yonkers: Marlin Company and the American Institute of Stress; 2009.

[7] Bartram, T., Joiner, T. A., & Stanton, P. (2004). Factors affecting the job stress and job satisfaction of Australian nurses: implications for recruitment and retention. Contemporary nurse, 17(3), 293-304. doi:10.5172/conu.17.3.293

[8] Belete, H., Ergetie, T., Ali, T., Birhanu, S., & Belete, T. (2020). Work-Related Stress and Associated Factors Among Textile Factory Employees in Northwest Ethiopia: A Cross-Sectional Study. *Psychology Research and Behavior Management*, *13*, 1071.

[9] Bendel, R. B., & Afifi, A. A. (1977). Comparison of stopping rules in

© 2022 JPPW. All rights reserved

forward "stepwise" regression. *Journal of the American Statistical association*, *72*(357), 46-53.

[10] Biron, M., Bamberger, P. A., & Noyman, T. (2011). Work-related risk factors and employee substance use: Insights from a sample of Israeli blue-collar workers. Journal of Occupational Health Psychology, 16(2), 247. doi:10.1037/a0022708

[11] Etefa, M. M., Teklu, M. G., & Teshome, D. F. (2018). Work related stress and associated factors among Huajian shoe manufacturing employees in Dukem town, central Ethiopia. *BMC research notes*, *11*(1), 1-6. doi:10.1186/s13104-018-3727-5

[12] Gabriel, P., & Liimatainen, M. R. (2000). Mental health in the workplace: introduction, executive summaries.

[13] Hopkins, M. L. (2014). The sources of work stress and coping resources for high school teachers in the Gauteng Province within different career stages (Doctoral dissertation).University of South Africa

[14] Houtman, I., Jettinghof, K., & Cedillo, L. (2007). Raising awareness of stress at work in developing countires: a modern hazard in a traditional working environment: advice to employers and worker representatives.

[15] James, S. M., Honn, K. A., Gaddameedhi, S., & Van Dongen, H. (2017). Shift work: disrupted circadian rhythms and sleep—implications for health and well-being. *Current sleep medicine reports*, *3*(2), 104-112. doi:10.1007/s40675-017-0071-6

[16] Jamison, D. T., Summers, L. H., Alleyne, G., Arrow, K. J., Berkley, S., Binagwaho, A., ... & Yamey, G. (2013). Global health 2035: a world converging within a generation. *The lancet*, *382*(9908), 1898-1955. doi:10.1016/S0140-6736(13)62105-4

[17] Jeyaraj, S. S. (2013). Occupational stress among the teachers of the higher secondary schools in Madurai District, Tamil Nadu. *IOSR Journal of Business and Management*, *7*(5), 63-79.

[18] Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P., & Amick, B. (1998). The Job Content Questionnaire (JCQ): an instrument for internationally comparative assessments of psychosocial job characteristics. *Journal of occupational health psychology*, *3*(4), 322.doi:10.1037/1076-8998.3.4.322

[19] Kitronza, P. L., & Mairiaux, P. (2015). Occupational stress among textile workers in the Democratic Republic of Congo. *Tropical medicine and health*. 43 (4):223–231. doi:10.2149/tmh.2015-24

[20] Lambert, E. G., Qureshi, H., Frank, J., Klahm, C., & Smith, B. (2018). Job stress, job involvement, job satisfaction, and organizational commitment and their associations with job burnout among Indian police officers: A research note. *Journal of Police and Criminal Psychology*, *33*(2), 85-99. doi:10.1016/j.soscij.2015.10.001

[21] Larson, L. L., Meier, H. H., Poznanski, P. J., & Tipton Murff, E. J. (2004). Concepts and consequences of internal auditor job stress. *Journal of Accounting & Finance Research*, *12*(6).

[22] Lin, P. C., Chen, C. H., Pan, S. M., Chen, Y. M., Pan, C. H., Hung, H. C., & Wu, M. T. (2015). The association between rotating shift work and increased occupational stress in nurses. *Journal of occupational health*, *57*(4), 307-315. doi:10.1539/joh.13-0284-OA

[23] Logan, M. S., & Ganster, D. C. (2005). An experimental evaluation

© 2022 JPPW. All rights reserved

of a control intervention to alleviate job-related stress. *Journal of Management*, *31*(1), 90-107.

[24] Lu, K. Y., Chang, L. C., & Wu, H. L. (2007). Relationships between professional commitment, job satisfaction, and work stress in public health nurses in Taiwan. *Journal of Professional Nursing*, *23*(2), 110-116.

[25] Ma, C. C., Andrew, M. E., Fekedulegn, D., Gu, J. K., Hartley, T. A., Charles, L. E., ... & Burchfiel, C. M. (2015). Shift work and occupational stress in police officers. *Safety and health at work*, *6*(1), 25-29. doi:10.1016/j.shaw.2014.10.001

[26] Mohan, G. M., Elangovan, S., Prasad, P. S. S., Krishna, P. R., & Mokkapati, A. K. (2008). Prevalence of job strain among Indian foundry shop floor workers. *Work*, *30*(4), 353-357.

[27] Moreau, M., Valente, F., Mak, R., Pelfrene, E., De Smet, P., De Backer, G., & Kornitzer, M. (2004). Occupational stress and incidence of sick leave in the Belgian workforce: the Belstress study. *Journal of Epidemiology & Community Health*, *58*(6), 507-516. doi:10.1136/jech.2003.007518

[28] Nagra, V. (2013). Occupational Stress among Teacher Educations. *Global Online Electronic International Interdisciplinary Research Journal*, *2*(2), 12-23.

[29] Newman, J. E., & Beehr, T. A. (1979). Personal and organizational strategies for handling job stress: A review of research and opinion. *Personnel Psychology*, *32*(1), 1-43.

[30] Phillips, S., Sen, D., & McNamee, R. (2007). Prevalence and causes of self-reported work-related stress in head teachers. *Occupational medicine*, *57*(5), 367-376. doi:10.1093/occmed/kqm055

[31] Ren, P., Qin, X., Zhang, Y., & Zhang, R. (2018). Is social support a cause or consequence of depression? A longitudinal study of adolescents. *Frontiers in psychology*, 1634. doi:10.3389/fpsyg.2018.01634

[32] Sein, M. M., Howteerakul, N., Suwannapong, N., & Jirachewee, J. (2010). Job strain among rubber-glove-factory workers in central Thailand. *Industrial health*, *48*(4), 503-510. doi:10.2486/indhealth.MS962

[33] Selye, H. (1936). A syndrome produced by diverse nocuous agents. *Nature*, *138*(3479), 32-32.

[34] Shanbhag, D., & Joseph, B. (2012). Mental health status of female workers in private apparel manufacturing industry in Bangalore city, Karnataka, India. *International Journal of Collaborative Research on Internal Medicine & Public Health*, *4*(12), 1893-1900.

[35] Sharma, K. S., Srivastava, S. P., Panchal, P. A., & Kaur, A. M. (2017). The effect of shift work on lifestyle, mental health and physical health status of footwear factory workers: a comparison between night shifts and day shifts. *Website: www ijpot com*, *11*(4), 434.

[36] Singh, A.(1992) Age, education, mental health of industrial workers. *Indian Journal of occupational Health*, *35*(2):64-69.

[37] Soori, H., Rahimi, M., & Mohseni, H. (2008). Occupational stress and work-related unintentional injuries among Iranian car manufacturing workers. *EMHJ-Eastern Mediterranean Health Journal, 14 (3)*, 697-703, 2008.

[38] Tennant, C. (2001). Work-related stress and depressive disorders. Journal of psychosomatic research, 51(5), 697-704. doi:10.1016/S0022-3999(01)00255-0

© 2022 JPPW. All rights reserved

[39] von Treuer, K., Fuller-Tyszkiewicz, M., & Little, G. (2014). The impact of shift work and organizational work climate on health outcomes in nurses. Journal of Occupational Health Psychology, 19(4), 453. doi:10.1037/a0037680

[40] Wang, J., Mann, F., Lloyd-Evans, B., Ma, R., & Johnson, S. (2018). Associations between loneliness and perceived social support and outcomes of mental health problems: a systematic review. *BMC psychiatry*, *18*(1), 1-16. doi:10.1186/s12888-018-1736-5

[41] World Health Organization. (1997). Health and environment in sustainable development: five years after the Earth Summit (No. WHO/EHG/97.8). World Health Organization.

© 2022 JPPW. All rights reserved