

ORIGINAL CONTRIBUTION

Predictors of Occupational Stress in Manufacturing Industries

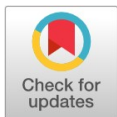
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Abstract— This study was conducted to examine the marital status, role of gender and organizational ownership in occupational stress in the employees of different manufacturing industries. Occupational Role Questionnaire was used to collect the information from the participants. Sample was comprised of one twenty participants from POF Wah Cantt, Taxila and different industries of Haripur Hattar. Data was collected through purposive sampling technique and hypotheses were analyzed by using t test and Regression. Hypotheses of this study were supported. The findings shows that female employees significantly scored high as compared to their male counterparts. On occupational stress scores of married workers were significantly high as compared to unmarried workers. On occupational stress scores of private sector workers significantly high as compared to public sector workers. Marital status was the most prominent, gender was the secondary important, and organizational ownership was the third important predictor of occupational stress among the employees in the industrial units. The understanding of marital status, role of gender and organizational ownership in occupational stress in industries made this study valuable. Stress management programs in the workplace can be conducted for helping female employees to cope with occupational stress. Private organizations also needed to increase incentives so that they can get rid from occupational stress.

Index Terms— Occupational stress; Gender, Marital status, Organizational ownership

Received: 16 July 2021; **Accepted:** 01 October 2021; **Published:** 15 November 2021



Introduction

Occupational stress is well recognized as a global problem with serious health and economic implications in both industrialized and developing countries. Occupational stress is a gradual process in which individual cognitive assessments of occupational stressors lead to adverse health and severe behavioral consequences. It is caused by a "toxic" work environment, which includes things like poor control, high work demands, a lack of information, extreme pressure, and limited decision-making latitude. As a result, various organizational resources, including the psychological safety climate, have an impact on an employee's work environment (Moreno, Tian, & Huebner, 2020).

Job stress is thought to be one of the antecedents of organizational commitment, but understanding of the relationship between job stress and organizational commitment has been both inconsistent and incomplete (Abdelmoteleb, 2019). One research conducted in China revealed that perceiving higher job stress would present higher organizational commitment among university teachers (Kang and Liu, 2018).

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Work stress, according to Cox (1993), is a psychological state that results from an individual's knowledge of an imbalance between occupational obstacles and their ability to cope with them. Most of the occupations involve certain levels of stress. Manufacturing industries are most stressful in this regard. In comparison with the superior positions in the companies, the front line employees or the labor is more vulnerable for stress due to their direct interaction with the machinery, hectic routines, and fatigue.

Prim (2005) concluded that an individual's work place position should too influence stress intensity. Whereas workplace stress has the potential to affect workers of all groups, from those with very little control to those who are making the most important decisions for the company. However, when compared to powerful employees, fewer effective people are more likely to enjoy strain. Labor within the manufacturing industry is made from poor employees who maximum of the time suffers from monetary constraints. Financial components that employees ought to face inside the twenty first century had been associated with enlarged tiers of stress (Prim, 2005).

Employees' emotional and physical health is influenced not just by what they do at work, but also by when and how long they work. Working rotational shifts or in the night shift time occupational results in a disturbance of circadian rhythms of physiological and community behaviours, and has been identified as a stressor at work. Employees who work overtime or late at night, for example, indicate that it has an impact on their physical and mental health (Ettner & Grzwacz, 2001). Shift work is another typical professional stressor, according to Hurrell and Murphy (1995), which has been shown to alter blood pressure, metabolic rate, sugar level, psychological competence, and motivation to work.

Moreno, Tian, and Huebner, (2020) examine the relationship between occupational stress and complete mental health among employees in Cabo Verde and China, and also explored the mediation and moderation roles of burnout and optimism in accounting for the empirical link. Mental health was defined as comprised of two distinguishable factors: positive and negative mental health. The Pearson correlation test, structural equation modeling (SEM) analysis, bootstrap analysis, hierarchical moderated regression and an independent t-test were used to analyze the data. The results indicated that, in both countries, occupational stress showed a negative relation to positive mental health and lower psychopathology symptoms and job burnout mediated the relation between occupational stress and mental health. Optimism moderated the relation between occupational stress and burnout, but not the relation between occupational stress and complete mental health.

Lu, Yan, Yang, and Liu, (2020) the influence of occupational stress and psychological health on hypertension after controlling other factors through propensity score matching. The result showed that psychological health was one of the risk factors for hypertension. Results showed that occupational stress had an indirect effect on hypertension. Stress that can cause the body to produce a stress response was proved to be the main reason for hypertension. Occupational stress is one type of stress. Therefore, occupational stress can cause the body to produce a stress response too. Some researchers believe that under stress the level of certain hormones in our body will increase. Some of these hormones will affect our psychological condition, including norepinephrine, adrenaline, adrenal cortex hormones. Therefore, the impact of occupational stress on hypertension may be caused by changes in psychological state, which was caused by increased secretion of certain hormones in the body under stress. They also found that age and gender have both direct or indirect effects on occupational stress or psychological health. This may be related to the stress and psychological tolerance of different age and gender groups. In addition, income and education was also found to affect occupational stress.

Some researchers believe that the more educated, the less stressed (Mingjuan, et al. 2019). Some studies show that low income was also a risk factor for occupational stress. One research was conducted to investigate the relationship between occupational stress and job satisfaction among textile managers. A cross sectional study was used to examine the relationship between occupational stress and job satisfaction. Descriptive analysis, Pearson correlation and multiple regression analysis were employed to analyze the data. The findings revealed that there is a significant relationship between occupational stress and job satisfaction. The findings of the study confirmed that stress affects the satisfaction level of the employees (Vadivu, 2017).

According to Basu, Qayyum, and Mason (2016) stress in the ED is of international significance given its established relationships with sickness absence, high staff turnover and early retirement. In addition, those workers encountering stress but remaining in work may experience physical and psychological illness, be prone to making errors and develop maladaptive lifestyle behaviours. Occupational stress, defined as when the resources of the individual are not sufficient to cope with the demands of a situation, is a leading modern health and safety challenge. Stress has been linked to several adverse health and occupational outcomes. Acute exposure can lead to sleep disturbance, fatigue and gastrointestinal upset.

Song, et al. (2017) performed a comprehensive study of socio demographic, occupational and psychosocial stress, and mental health states in dentists who are specialized profession, with reasonable and detailed analysis of various variables. Finally, this study revealed that overall occupational stress was related to mental health state in the dentists, especially occupational stress from the interpersonal relationship with the patient and responsibility as an expert rather than the intensity of the work itself has a significant correlation with the mental health state. Further research based on the results of this study will be needed and institutional basis for practical help to reduce occupational stress of dentists.

Stress is emerging as an increasing problem in organizations and companies over the recent decades. Despite the awareness on the risks associated with occupational stress, the growing number of literature on stress, so far no empirical research was done to study the

prevalence of stress and associated work stressors of employees in Kosovo. Through quantitative research, this study sought to provide scientific contribution by examining the prevalence of stress and by identifying factors that cause stress among public and private sector employees. Findings revealed a relatively high prevalence of occupational stress among employees, where respondents with 1-20 years of work experience reporting being significantly more stressed than those with more than 20 years of work experience. Moreover, results showed that stress adversely affects job performance of employees with 1-20 years of work experience as well as of female employees. Stressors pertaining to demand, control, support, relationships, role and change were identified to be causing occupational stress among employees, all showing positive significant correlation with stress. Furthermore, both public and private sector employees considered similar factors as stressful, even though public sector employees reported experiencing slightly higher levels of stress (Sejd, Tolaj, Havolli, & Beqiri, 2020).

Rationale

It is evident from the literature review that job stress is an adaptive response to external situations that results in physical, psychological and behavioral deviations for participants. It is very important construct and has direct and indirect impact on a person and society as a whole. Researches on occupational stress are related with job performance physical and psychological health and professional burnout etc, (Anthoniou, Polychroni & Vlachakis, 2006; Abu AlRub & Fawrzi, 2004; Helsop, Smith, Hart, & Metcalfe, 2002). This study will provide us the information about the factors that play casual roles in the development of occupational stress among working people of public and private sector organizations.

Objectives

- To determine the gender differences across occupational stress among workers.
- To determine the differences on occupational stress across various demographic variables of the present study.

Literature Review

A study conducted by Sari et al. (2021) results indicated that work stress has a significant impact on employees. Thus, there study suggested that the organization to perform a proper stress management as a solution to work stress by implementing flexible working hours and holding discussion forums and meetings between employees. Therefore, employees will be more motivated to improve work productivity. Karamchandani, Kamal and Dubule, (2020) concluded that occupational stress significantly and negatively predicted attitude towards management of the employees. The attitude of women employees towards management was more significantly and negatively related to occupational stress respectively as compared to their male counterparts. Occupational stress affects nurses health-related quality of life negatively, while it can also be considered as an influence on patient outcomes Sarafis, et al., (2016).

According to Aidoo (2017), a variety of factors contribute to workplace stress and stress-related issues. These factors include, among others, the environment, occupational demand (task), organizational structure, and family-work-life balance. Organizational stress has a negative influence on the workforce. Workers' stress levels are related to the type and degree of the circumstances that cause it. The findings of his study show that exposure to high levels of stress on a regular basis has a series of unsettling and harmful physiological and health implications. A decline in job performance owing to illness, injury, absenteeism, quality control costs, turnover costs, and violence is the underlying consequence.

Ventouratos, and Cooper (2005) observed significant differences in mental and physical health between men and women groups. Women endure increased levels of occupational stress associated to sex specific stressors and contain various ways of inferring and working with problems related to their occupational conditions, according to the writings on a regular basis (Anthoniou et al., 2006). Males embody statistically notable lesser work stress scores (Sharpley et al., 1996). One study showed that female managers have more stress as compared to male counterparts (Ventouratos & Cooper, 2005, Yakin, 2018).

Anthoniou et al. (2006) discovered that female educators experienced much higher levels of professional stress than their male counterparts. Females experience the highest level of stress, according to Ganster and Schaubroeck (1991), since they are more vulnerable to occupational problems and frequently face more non-work challenges than males. One of the many reasons behind the high levels of stress being experienced by women is work-family conflict (Landsbergis, et al., 2001, Mi-Youn, 2018) which causes multiple psychological well-being and mental health related issues.

Along with gender, marital status is another important factor that contributes to occupational stress. Married workers are reported to be more stressful than unmarried work force (Poloski & Bogdanic, 2007). Another important factor contributing to stress is organizational ownership. Employees working in private sector companies are reported to experience more stress than employees of the public sector organizations (Wlodarski, 2010).

Bhui, Dinos, Galant-Miecznikowska, Jongh, and Stansfeld, (2016) suggested that employees in private organizations and NGOs report more perceived causes of stress and have fewer interventions in place to help employees manage stress compared with public sector organizations, notably National Health Service (NHS) employers. Participants of their study reported adverse working conditions and management practices as common causes of work stress.

Stress-inducing management practices included unrealistic demands, lack of support, unfair treatment, low decision latitude, lack of appreciation, effort–reward imbalance, conflicting roles, lack of transparency and poor communication. Organizational interventions were perceived as effective if they improved management styles, and included physical exercise, taking breaks and ensuring adequate time for planning work tasks.

Kim et al. (2018) concluded that occupational stress has been shown to increase the probability of suicide ideation by causing depressed symptoms to intensify. As a result, organization should focus on lowering the number of depressed employees by screening for clinical depression and referring patients to company-affiliated psychiatrists for active treatment. Furthermore, gender variations in components of occupational stress linked to suicide thoughts were discovered in their research. As a result, employers should take gender disparities into account when formulating policies, such as offering appropriate pay and job control to male workers while providing social assistance to female workers.

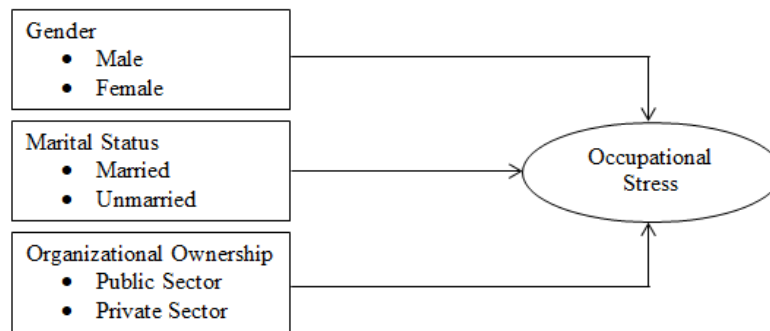


Fig. 1. Conceptual framework

Hypotheses

- H₁*: Female workers will significantly score high on occupational stress as compared to male workers.
- H₂*: Married workers will significantly score high on occupational stress as compared to single workers.
- H₃*: Private sector workers will significantly score high on occupational stress as compared to public sector workers.
- H₄*: Gender, marital status, and organizational ownership will significantly predict occupational stress among the employees.

Method

Participants

Participants of the present study were comprised of employees N = 120 (male n = 60 and female n = 60), married and unmarried, public and private sector with age range of 24 to 53 years old from Ordinance Factory of Wah Cantt, Taxila and Hattar. Similarly public (n = 60, 50%) and private sector employees (n = 60, 50%) were part of sample. Convenient sampling procedure was used to collect the data. Permission was obtained from the concerned authorities and the immediate participants. The questionnaires were administered during the break times in the industries.

Measure

For measuring occupational stress Urdu translated version of Occupational Role Questionnaire originally developed by Osipow and Spokane (1987) and translated by Salik (2006) was used. This questionnaire comprised of 60 items. The questionnaire is based on five-point Likert type scale. The alpha coefficient reliability of Occupational Role Questionnaire was 0.91.

Results

Table I
Mean, standard deviation and *t*-values for adolescents on occupational stress with respect to (a) gender, (2) marital status, and (c) organizational ownership (N = 120)

Sr. No.	Independent variable (IV)	Categories of IV	N	M	SD	t(118)	P	95%CI		Cohen's d
								LL	UL	
a	Gender	Female	60	197.23	26.61	4.23	.000	29.99	10.40	3.123
		Male	60	176.80	28.17					
b	Marital status	Married	50	200.98	19.41	5.017	.000	33.39	14.49	4.120
		Unmarried	70	177.04	29.46					
c	Organizational ownership	Private	60	197.03	28.99	4.137	.000	29.62	10.44	2.214
		Public	60	177.00	23.80					

Table I shows that independent sample t test is computed with (a) gender, (b) marital status, and (c) organizational ownership in occupational stress among employees. The findings indicate that female employees significantly scored high on occupational stress scale than male employees. Married employees significantly scored high on occupational stress scale than unmarried employees. Private sector employees significantly scored high on occupational stress scale than public sector employees.

Table II
Stepwise regression analysis showing marital status, gender and organizational ownership effects on the prediction of occupational stress among employees (N = 120)

Model		β	R ²	F	ΔR^2	ΔF
1	Marital status	.419***	.176	25.170***	.176	25.170***
2	Marital status	.368***	.264	20.946***	.088	13.958***
	Gender	.301***				
3	Marital status	.316***	.352	21.047***	.089	19.910***
	Gender	.310***				
	Organizational ownership	.303***				

****p* < .001

Table II shows the results of Stepwise Regression analysis. Model 1 indicates that marital status is the most ruminant predictor of occupational stress ($\beta = .419, p < .001$). The ΔR^2 value of .176 showed that variance 17.6% in dependent variable can be accounted for, by the predictor with $\Delta F (1,118) = 25.170, p < .001$. Model 2 indicates that gender is the secondary important predictor of occupational stress ($\beta = .301, p < .001$) along with marital status ($\beta = .368, p < .001$). The ΔR^2 value of .088 indicates that 8.8% variance in the dependent variable can be accounted for, by the predictors with $\Delta F (2,117) = 13.958, p < .001$. Model 3 indicates that organizational ownership is the third important predictor of occupational stress ($\beta = .303, p < .001$) along with marital status ($\beta = .316, p < .001$) and ($\beta = .303, p < .001$). The ΔR^2 value of .089 indicates that 8.9% variance in the dependent variable can be accounted for, by the predictors with $\Delta F (3,116) = 19.910, p < .001$.

Discussion

This research was designed to study the effect of personal factors i.e. gender and marital status, and organizational factors i.e. organizational ownership in occupational stress. For this purpose, data was obtained from industries. All the hypotheses were supported.

The first hypothesis “female workers will significantly score high on occupational stress as compared to male workers” was supported. Female workers showed high scores on occupational stress as compared to male employees. The findings are consistent with the past research. Karamchandani, Kamal and Dubule, (2020) concluded that occupational stress significantly and negatively predicted attitude towards management of the employees. The attitude of women employees towards management was more significantly and negatively related to occupational stress respectively as compared to their male counterparts. Wlodarski (2010) discovered that women were affected twice by high levels of stress 29.4%, as compared to men 15.2%.

The second hypothesis “married workers will significantly score high on occupational stress as compared to unmarried workers” was supported in the present investigation. The findings are consistent with previous research (Poloski & Bogdanic, 2007) indicating that married workers face more stress due the dual demands of work and family related responsibilities than unmarried employees. Married employees face multiple challenges related to work-family conflict and they have to ensure work-life balance in order to maintain health work and family life. As a result, married workers are more vulnerable for stress at work place than single employees.

The third hypothesis “private sector workers will significantly score high on occupational stress as compared to public sector workers” was supported in this research. While working on occupational stress between the employees of public and private sector organizations, Lehal (2007) discovered that private sector workers face more stress than public sector. Bhui, Dinos, Galant-Miecznikowska, Jongh, and Stansfeld, (2016) suggested that employees in private organizations and NGOs report more perceived causes of stress and have fewer interventions in place to help employees manage stress compared with public sector organizations, notably National Health Service (NHS) employers. Participants of their study reported adverse working conditions and management practices as common causes of work stress. Stress-inducing management practices included unrealistic demands, lack of support, unfair treatment, low decision latitude, lack of appreciation, effort–reward imbalance, conflicting roles, lack of transparency and poor communication. Organizational interventions were perceived as effective if they improved management styles, and included physical exercise, taking breaks and ensuring adequate time for planning work tasks. One of the many reasons of these differences reside in the fact that public sector organizations are more human welfare oriented and private sector organizations are more profit oriented. Wlodarski (2010) studied occupational stress level in jobians. The findings indicate that more people suffer from stress in the private sector (22.6%) than in the public sector (13.5%).

The 4th hypothesis “gender, marital status, and organizational ownership will significantly predict occupational stress among the workers” was supported in this study. The findings indicate that gender, marital status, and organizational ownership have significant positive effect on occupational stress. However, the personal factors were more important predictors of occupational stress than the organizational factors. Marital status was the most prominent predictor of occupational stress. The findings are same as with the previous literature. Some researchers believe that the more educated, the less stressed (Mingjuan, et al. 2019). Some studies show that low income was also a risk factor for occupational stress.

Poloski and Bogdanic (2007) illustrate that level of occupational stress and marital status both associated with each other. Findings indicate that gender was the secondary important predictor of occupational stress. Past research indicates that gender is associated with work stress (Jones, 2008). Approximately thirteen hundred full time workers a private corporations group in United States, it was indicated that gender, with some other stressors contribute more (Ugon, 2001). Organizational ownership was the third important predictor of occupational stress. Organizational ownership was associated to occupational stress in the many different Saudi Arabia organizations (Khaled, Al-Shammari & Jefri, 1995). However, the researched reported that due some reasons, private sector employees experience more occupational stress than public sector organizations.

Conclusion

This study is pretty appreciative in understanding the personal role and organizational factors in occupational stress. Manufacturing sector of Pakistan is less researched as compared to service providing organizations. The hypotheses were supported in the present research. Female and married employees exhibited more occupational stress than male and unmarried employees. Private sector workers indicated more occupational stress than public sector workers interestingly, personal factors i.e. were the most important predictors of occupational stress than organizational factors. Marital status was the most prominent, gender was the secondary important, whereas organizational ownership the third important predictor of occupational stress among the employees.

Limitations

There are certain limitations to this research. First and foremost, the sample size was quite small. Employees did not return a large number of research questionnaires. This study was undertaken in two regions, with the possibility of expanding it to more cities across the country in the future. Teachers, physicians, and other mental health professionals were included in the study’s sample, which could expand in the future.

Implications

Stress management programs in the workplace can be conducted for helping female employees to cope with occupational stress. Private organizations also needed to increase incentives so that they can get rid from occupational stress. Duty hours should be specific for specific workload of the employee and psychological services must be provided to the public and private sectors, so that psychologists provide counselling and psychological services to the employees. Furthermore, recreational activities should be arrange for the employees so that they can get rid from occupational stress.

REFERENCES

- Abdelmoteleb, S. A. (2019). A new look at the relationship between job stress and organizational commitment: A three-wave longitudinal study. *Journal of Business and Psychology, 34*(3), 321-336. <https://doi.org/10.1007/s10869-018-9543-z>
- Aditya, S. M., & Sen, A. K. (1993). Executives under stress: A comparison between men and women. *Journal of the Indian Academy of Applied Psychology, 19*(2), 1-6.
- Aidoo, W. A. (2016). The influence of stress on the health of workers in manufacturing industry. *Sarajevo Journal of Social Sciences, 2*(2). <http://dx.doi.org/10.21533/isjss.v2i2.84>
- Anthoniou, A. S., Polychroni, F., & Vlachakism A. N. (2006). *Journal of Managerial Psychology, 21*(7), 682-690.
- Basu, S., Qayyum, H. and Mason, S. (2016). Occupational stress in the ED: A systematic literature review. *Emergency Medicine Journal, 34*(7), 441-447. <https://doi.org/10.1136/emmermed-2016-205827>
- Bhui, K., Dinos, S., Galant-Miecznikowska, M., de Jongh, B., & Stansfeld, S. (2016). Perceptions of work stress causes and effective interventions in employees working in public, private and non-governmental organisations: A qualitative study. *BJPsych bulletin, 40*(6), 318-325. <https://doi.org/10.1192/pb.bp.115.050823>
- Cox, T. (1993). *Stress research and management: Putting theory to work* CRR. London, UK: HMSO.
- Sari et al., (2021). The effect of job stress to employee performance: Case study of manufacturing industry in Indonesia. *IOP Conf. Ser.: Earth and Environmental Sciences*. <https://doi.org/10.1088/1755-1315/794/1/012085>
- Ettner, S. L., & Grzwacz, J. G. (2001). Worker's perceptions of how occupations affect health: A Social ecological perceptual strain. *Journal of Applied Psychology, 86*, 418-424.
- Fotinos-Ventouratos, R., & Cooper, C. (2005). The role of gender and social class in work stress. *Journal of Managerial Psychology, 20*(1), 14-23.
- Ganster, D. C., & Schaubroeck, J. (1991). Work Stress and Employee Health, *Journal of Management, 17*(2), 235-271.
- Hurrell, J. J., & Murphy, L. R. (1995). Psychological occupational stress. *Journal of Human Stress, 58*,112-130.
- Jones, L. (2008). Organizational Commitment: Buffer of Work Stress? *The Plymouth Student Scientist, 1*(2), 142-185.
- Kang, X. L., and Liu, L. (2018). Discussion of the relationship between perceived job characteristics and organizational commitment of university pe teachers-from the aspect of job stress. *Journal of Interdisciplinary Mathematics, 21*(2), 317-327. <https://doi.org/10.1080/09720502.2017.1420562>
- Khaled A. B., Al-Shammari, I. S., & Jefri, O. A. (1995). Occupational Stress in different organizations: A Saudi Arabian survey. *Journal of Managerial Psychology, 10*(5), 24-28. <https://doi.org/10.1108/02683949510085956>
- Karamchandani, Kamal, & Dubule, V. K., (2020). Job anxiety and occupational stress among employees of IT sector: Impact on their attitude towards management. *International Journal of Engineering and Management Research, 10*(3), 37-44
- Kim, S. Y., Shin, D. W., Oh, K. S., Kim, E. J., Park, Y. R., Shin, Y. C., & Lim, S. W. (2018). Gender differences of occupational stress associated with suicidal ideation among South Korean employees: The Kangbuk Samsung health study. *Psychiatry investigation, 15*(2), 156-163. <https://doi.org/10.30773/pi.2017.05.31.1>
- Landsbergis, P. A., Belkic, K. L., Baker, D., Schnall, P. L., Schwartz, J., & Pickring, T. G. (2001). Work stressors and cardiovascular disease. *Work, 17*, 191-208.
- Lehal, R. (2007). A study of organizational role stress and occupational satisfaction among executives in Punjab. *Indian Management Studies Journal, 11*(5), 67-80.
- Lu, Y., Yan, H., Yang, J., & Liu, J. (2020). Occupational stress and psychological health impact on hypertension of miners in noisy environment in Wulumuqi, China: A case-control study. *BMC Public Health, 20*(1), 1675. <https://doi.org/10.1186/s12889-020-09760-9>
- Moreno Fortes, A., Tian, L., & Huebner, E. S. (2020). Occupational stress and employees complete mental health: A cross-cultural empirical study. *International journal of environmental research and public health, 17*(10), 3629. <https://doi.org/10.3390/ijerph17103629>
- Mingjuan Z, Binghui L, Qiao H, et al. (2019). A study on incidence and influencing factors of hypertension in teaching staff in a university of Henan Province. *Chinese Journal of Evidence-Based Medicine, 11*(6), 722-728.
- Mi-Youn, C. & Suk, K. J. (2018).The effects of one-time laughter therapy on stress response, school life adjustment and ego-resilience of women college students. *Journal of Management Practices, Humanities and Social Sciences, 2*(1), 11-15.
- Osipow, S. H., & Spokane, A. R. (1987). *Occupational stress inventory*. Odessa, FL: Psychological Assessment Resource.
- Poloski, N., & Bogdanic, A. (2007). Individual differences and occupational stress perceived: A croatian survey (E.F.Z.G Working Papers Series, Number. 0705).
- Primm, D. (2005). What workplace stress research is telling technical communication? *Technical Communication, 52*, 449-455.

- Sari et. al., (2021). The effect of job stress to employee performance: Case study of manufacturing industry in Indonesia. *Earth and Environmental Science. 4th International Conference on Eco Engineering Developmen, Banten, Indonesia.*
- Song, KW., Choi, WS., Jee, HJ. et al. Correlation of occupational stress with depression, anxiety, and sleep in Korean dentists: Cross-sectional study. *BMC psychiatry*, 17(1), 1-11. <https://doi.org/10.1186/s12888-017-1568-8>
- Sharpley, C. F., Reynolds, R., Acosta, A., & Dua, J. K. (1996). The presence, nature and effects of occupational stress on physical and psychological health at a large Australian university. *Journal of Educational Administration*, 34(4), 73-86.
- Sarafis, P., Rousaki, E., Tsounis, A., Malliarou, M., Lahana, L., Bamidis, P., Niakas, D., & Papastavrou, E. (2016). The impact of occupational stress on nurses' caring behaviors and their health related quality of life. *BMC Nursing*, 15(1), 1-9. <https://doi.org/10.1186/s12912-016-0178-y>
- Sejd, Tolaj, Havolli, J., Y, & Beqiri, G. (2020). Prevalence of and factors linked to occupational stress in public and private organizations in Kosovo. *Journal of Accounting and Management*, 10(1), 2284–9459.
- Ugon, D. (2001). Collegamenti e interdependenze tra stress da lavoro, consumo di alcool, sostanze stupefacenti e violenza. *Rivista Italiana di Medicina Legale*, 23.
- Vadivu, S. T., (2017). A study on occupational stress and job satisfaction among the textile managers in tirupur. *International Journal of Human Resource & Industrial Research*, 4, 38–50. <http://doi.org/10.5281/zenodo.293798>
- Wlodarski, O. (2010). Luxembourg: EWCO Comparative Analytical Report on Work-Related Stress. European Working Conditions Observatory.
- Yakin, H. S. M., & Totu, A. (2018). Managing acculturative stress and building an effective intercultural relation: A case study among international students at universiti Malaysia Sabah. *Journal of Advances in Humanities and Social Sciences*, 4(6), 244-257.