ORIGINAL ARTICLE

Association of Burnout with Organizational Factors and Occupational Health among Female Factory Workers — Continuing Study

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ABSTRACT

Introduction. With the growing number of females employed as factory workers, it is important to look into the phenomenon of burnout and related organizational climate affecting these workers.

Objectives. The objectives of the study were: 1) to determine the effect of organizational climate on burnout among female factory workers; and 2) to look into the association between burnout as well as illnesses, injuries, hazard exposures and organizational climate factors.

Methods. The secondary data used for this study was from a cross-sectional study involving 344 female factory workers. This paper is a continuing analysis of the previous paper of the same author which focused on establishing indices for burnout. This paper proceeds with correlation analysis between burnout and associated organizational factors, illnesses, and injuries in the workplace.

Results. There was a total of 344 female respondents with mean age of 26 (SD=5.02), and majority were single (69.21%). Burnout score was significantly positively correlated with all experienced workplace accidents. Female workers getting wounded due to sharp objects has a strong positive relationship with burnout score. Eye infection, dust inhalation, electrical accidents, and getting caught in machine parts have a moderate positive relationship with burnout score. Meanwhile, for illnesses, the following have a weak positive relationship with burnout - headache, cough and colds, genitourinary infections and bodyache. Organizational Climate Factors such as Autonomy on Quality, Physical Work Content, and Personal Worker Perception Index were significant factors to increasing the relative risk for more sickness experienced among the female workers. Strong positive relationship existed with burnout score and excessive noise in workplace. Dust, intoxicating odors, and high temperatures have a moderately strong positive relationship. Organizational factors significant in predicting burnout were Autonomy on Quality, Skilled Work Content, Physical Work Content, Hazardous Work Content, Health, Safety, and Compensation, and Upskilling and Training Index. Results also showed that a higher autonomy on speed, how much work was done, and how work was done decreases probability of burnout. Linear regression showed that Burnout was also associated with workplace accidents, self-reported illnesses, and hazard exposures as independent variables.

Conclusion. This study has come up with correlational analysis between burnout and organizational factors, as well as with illnesses, injuries and hazard exposures in the occupational setting. This is a significant study as basis for policy and program formulation by industries concerned as well as the government.

Keywords: burnout, occupational safety and health, organizational climate, industrial psychology

INTRODUCTION

In a previous study of Lu,[1] the indices of burnout and organizational factors were looked into using dataset from 344 female factory workers in the Philippines. Organizational climate is defined as the composite factors affecting job autonomy, content of job and nature of management, and in the previous paper of Lu, organizational climate indices

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were constructed specifically as: Autonomy on Quality, Skilled Work Content, Physical Work Content, Hazardous Work Content, Health, Safety, and Compensation, and Upskilling and Training Index.

Multiple factors such as "occupational health risks (both conventional and apparent), health-related behaviors of workers, social factors (employment status, work stability, income, gender, race, and age), and their access to health care", affect the health and safety of laborers.[2] Aside from this, workplace hazards, which are categorized as biological, chemical, physical, safety, ergonomic, and psychosocial, exist and are continuously evolving.[3] These may lead to work-related injuries and illnesses, which may burden not only the individual but the economy. These factors may as well lead to a phenomenon, which is used in the occupational context, called "Burnout". The International Classification of Disease (ICD) defined this term as a "syndrome" that occurs when there is an unmanaged workplace stress that is chronic or lasting for greater than 6 months. The following dimensions must be present to be classified as Burnout, "feelings of energy depletion or exhaustion, increased mental distance from one's job, or feelings of negativism or cynicism related to one's job, and reduced professional efficacy".[4] Burnout have long term worldwide effects and examples are increased staff absenteeism, decline in productivity and efficiency, fast turnover of staff, compensation costs which is a yearly approximate of about 300 billion in US Dollars.[5] Efforts must be focused on eliminating burnout and improving the occupational health and safety of workers.

According to the International Labor Organization,[6] accidents and diseases that are brought about or related to work may lead to several losses and difficulties. It was added that despite the efforts in promoting occupational safety and health, there is still an increasing number of occupational deaths and diseases, which is estimated to be around 2 million. It was found that 2.2 million Filipino workers benefit from services promoting their occupational health and safety. On the other hand, there are approximately 38.8 million, which is 17 out of 18 workers, who do not receive adequate occupational health and safety services.[6] The Philippine Statistics Authority found in their 2015/2016 Integrated Survey on Labor and Employment (ISLE) that there was a 5.7% decline of occupational accidents with 44,739 cases in 2015 and 47,449 cases in 2013. However, it led to a 3.8% increase of work-related injuries, with 50,961 cases in 2015 from 49,118 cases in 2013.[7] Specifically, the industry of manufacturing, which often involves plants, mills, or factories for mass production of goods,[8] had the highest cases of occupational injuries, 50.4 %, with 25,667 cases in 2015, and 48.1%, with 23,641 cases in 2013.[9] In terms of compensation index, the workers in the manufacturing industry scored the lowest at 51.7. In comparison, the highest compensation index, which is 335.3 index points, belong to the private services industry.[9] It is alarming how wages remain low for most Filipino workers despite the presence of workplace hazards and increase in occupational accidents and injuries especially those in the manufacturing industry.

The increasing demand on the workforce, particularly factory workers or shopfloor employees can result to burnout, and in turn can affect productivity, or cause adverse health symptoms among workers. The study of female factory workers is seen to be vital as gender plays an important role in workplace stress,[10] and in the Philippines, females are predominantly employed and preferred over males especially in soft manufacture.

Majority of the labor force in the Philippines, which is 28.4 million and 60.04%, are males. The remaining 39.9%, which is 18.9 million workers, are women.[11] However, there is also an increase in unemployment rates in males, which is approximately 1.420 million or 61.1% in the year 2016.[9] It was stated in an article by Philippine Commission on Women [PCW] that women have a Labor Force Participation (LFP) rate of 48% in comparison to the 77% LFP rate of men. This may hinder the growth or progression of the economy. This may be explained by the following workplace situations or conditions: "gender-based discrimination, sexual harassment, gap among salaries, inadequate flexibility in the work arrangement, and others".[12] These are the things that most women encounter and experience while working.

The objectives of the study were: 1.) to determine the effect of organizational climate on burnout among female factory workers; and 2) to look into the association between burnout as well as illnesses, injuries, hazard exposures and organizational climate factors.

MATERIALS AND METHOD

The secondary data used for this study was from a cross-sectional study involving 344 female factory workers.[1] The respondents were sampled from multiple identified factories, and the information obtained were gathered through self-administered questionnaires.

The number of subjects involved in the study was determined through a random sample of females working in identified factories. The sample size was computed using Daniel's Formula,[13] then assuming a design effect of 1, confidence level of 95%, margin of error at 5% and sample proportion at 50% to get a sample size of 384. However, the number of factory workers included in the analysis was only 344 because some responses need to be dropped due to contamination, such as non-response, and no gender/sex information.

The analysis was conducted on a wide range of health and occupational data collected on 344 female factory workers. Socio-demographic data collected were age, sex, monthly-salary, civil status, educational attainment, and employment data. Socio-demographic data was identified for the descriptive analysis of the population studied. Health data gathered were self-reported frequency of occurrence of various mental health symptoms, physical health symptoms,

and injuries. Employment data collected were workload, shift schedule, work schedule, physical exertion, job satisfaction, presence of seminars on occupational health, and exposure to occupational hazards and chemicals at work.

Organizational Climate Factors were gathered from the respondents. The organizational climate factors were grouped into Job Autonomy, Content of the Job, Nature of Management, as well as Hazard Exposures. Items under Job Autonomy were scored as a 3-point Likert scale where 0 – no, 1 – sometimes, 2 – yes, while items under the Content of the Job, Nature of Management, and Hazard Exposures are dichotomous variables where 0 – no and 1 – yes.

This study tries to capture burnout as defined in the ICD-11 using nine items in the survey.[14] Feelings of energy depletion or exhaustion can be inferred from the items "work requires fast pacing", "work produces pressure on the part of the worker", and "work is physically and mentally tiring". Increased mental distance from one's job, or feelings of negativism or cynicism related to one's job can be inferred from the items "work is boring", "work is repetitious", "work is too much and not proportional to salary", and "Salary is not enough to meet worker's needs". Professional efficacy on the other hand can be inferred from the items "Worker encounters conflict of priorities between work and family", and "Work requires upskilling regularly". Furthermore, Christina Maslach's theory on Job Burnout noted workload, control, reward, community, fairness, and values as major organizational antecedents of burnout. In this study, this is replicated by the significant organizational factors affecting burnout which are job autonomy (autonomy on quality and rest), work content (skilled work, physical work, hazardous work), health, safety and compensation, and upskilling and training.[15]

The relationships of other organizational climate factors can be explored further with the burnout score developed here as the endogenous variable and the organizational climate indices as the exogenous variables. The indicators of the organizational climate were derived through exploratory factor analysis of items in the dataset. Exploratory Factor Analysis (EFA) is a technique to reduce the variables into a fewer set of "Component Variables". The technique explores the relationship of each indicator and then groups them according to which component they are highly correlated. The component then served as a summary of the information contained by the indicators whose factor loadings were highly correlated to it. The organizational climate indices were derived from the factor loading scores.

For Job Autonomy, EFA showed two components explaining up to 65.296% of the variance from the five items analyzed. "Worker may decide how he/she would finish work", "Worker may decide how fast he'd/she'd work", and "Worker may decide how much he'd/she'd accomplish" were highly correlated to the first component, with latent label as "Autonomy on Quality". "Worker may take rest breaks aside from scheduled rest breaks" and "Worker may decide to slow down his/her pace" were correlated to the second component with latent label as "Autonomy on Rest".

For Content of the Job items, EFA revealed three components explaining up to 59.554% of the total variance of the seven items. "Work requires much knowledge and skill", "Work requires strict visual inspection", and "Work requires severe concentration" were grouped into the first component with latent label as "Skilled work content component". "Work requires heavy physical load" and "Work requires awkward positions while working" were grouped into the second component with latent label as "Physical work content component". "Work involves handling chemicals" and "Work involves exposure to radiation" were grouped into the third component with latent label as "Hazardous work content".

Finally, for Nature of Management, two components were revealed during the EFA, explaining up to 59.404% of the variance of the nine items. The items "Health and Safety policy posted at the workplace", "Company gives seminars on healthy and safe living", "Worker participate in seminars held by his/her employer", "Workers are entitled to compensations/benefits given by the company", "Company has policies covering giving promotions and trainings to workers", "Worker is entitled to an insurance for accidents happening in the workplace", and "Company has policies against harassment and discrimination among workers" were grouped into the first component with latent label as "Health, Safety, and Compensation". On the other hand, "Company holds programs and trainings to develop skills of workers" and "Worker participates in programs and trainings held by his/her employer" were grouped into the second component with latent label as "Training programs".

Appendix 1 shows the mean, proportion, and factor analysis results of Burnout and Organizational Climate Indices for Job Autonomy, Content of Job, and Nature of Management as per the previous study.

To ensure the quality of the dataset, it was cleaned for possible contamination through outlier detection, detection of encoding errors and duplicates, and exclusion of respondents that were outside of the scope such as supervisory employees. More specific questions or information were also not contained in the dataset. The study was also limited by the same limitations as the primary source such as missing data and non-response to sensitive questions.

This study sought registration with the UP Manila - Research Grants Administration Office (RGAO). Ethics and informed consent were secured. This was to guarantee that researchers involved in the study followed ethical research practices and ensured the preservation of the confidentiality of respondents whose data was included for the study.

This paper is a continuing analysis of the previous paper of the author which focused mainly on establishing indices for burnout. This paper proceeds to show correlation analysis between burnout and associated organizational factors, illnesses, and injuries in the workplace.

RESULTS

There was a total of 344 respondents aged between 18 to 47. Majority were in the 20-24 and the 25-29 age bracket, together consisting 76.7% of the respondents. The mean age is 26 (SD=5.02), and 69.21% are single while 28.74% are married.

Correlation Analysis

Burnout score is significantly positively correlated with all experienced workplace accidents. Worker getting wounded due to sharp objects has a strong positive relationship with burnout score. Eye infection, dust inhalation, electrical accidents, and getting caught in machine parts have a moderate positive relationship with burnout score.

Meanwhile, for illnesses, the following have a weak positive relationship with burnout - headache, cough and colds, genitourinary infections and bodyache. Eye problem has a moderately strong positive relationship with burnout score.

Burnout score is significantly correlated with all hazard exposures. Strong positive relationship exists with burnout score and excessive noise in workplace, while dust, intoxicating odors, and high temperatures have a moderately strong positive relationship. Excessive noise is also strongly positively correlated with personal worker perception index, while exposure to high temperatures is strongly positively correlated with worker stress index (Table 1).

Poisson Regression Analysis

Organizational Climate Factors were also analyzed on their impact on the illnesses experienced by the female factory workers during the last six months. The dependent variable is a count variable giving the number of instances the respondent has reportedly suffered illnesses due to work within the last 6 months. Autonomy on Quality, Physical Work Content, and Personal Worker Perception Index are significant factors to increasing the risk ratio for more sickness experienced among the female workers. A one-point increase in the Autonomy on Quality Index significantly decreases the risk ratio of the worker experiencing more sickness by a factor of .998. A one-point increase in Physical Work Content Index significantly increases the risk ratio of worker experiencing more sickness by 0.4%. A one-point increase in Personal Worker Perception Index significantly increases the risk ratio of worker experiencing more sickness by 0.7% (Table 2).

Table 1. Correlation Analysis of Burnout and Injuries in Workplace, Illness in the Workplace, and Hazard Exposures

	Pearson Correlation Coefficient	p-value	N
Injuries in the Workplace			
Fainting in the workplace	0.131	0.038	253
Eye infection due to dust particles	0.329	<0.0001	340
Dust inhalation in the workplace	0.309	<0.0001	336
Wounds from sharp objects in the workplace	0.460	<0.0001	338
Falling accident in the workplace	0.271	<0.0001	340
Electrical accidents in the workplace	0.356	<0.0001	341
Body part getting caught in machine parts	0.342	<0.0001	341
Chemical spilled on body during workshift	0.262	<0.0001	334
Accidental burns in the workplace	0.202	<0.0001	341
Illnesses in the Workplace			
Headache	0.198	<0.0001	344
Cough and colds	0.209	<0.0001	344
Genitourinary infection	0.153	0.004	344
Eye problems	0.389	<0.0001	344
Bodyache	0.242	<0.0001	344
Hazard Exposures			
Dust exposure in the workplace	0.370	<0.0001	255
Exposure to fumes in the workplace	0.293	<0.0001	341
Exposure to intoxicating odors in the workplace	0.304	<0.0001	340
Exposure to vapors in the workplace	0.215	<0.0001	339
Exposure to cold temperatures in the workplace	0.168	0.002	341
Exposure to high temperatures in the workplace	0.398	<0.0001	338
Exposure to excessive noise in the workplace	0.432	<0.0001	341
Exposure to radiation in the workplace	0.205	<0.0001	338
Ergonomic hazards such as standing for hours during workshift	0.119	0.028	338

Linear Regression for Burnout

The dependent variable "Burnout Score" as expounded in the previous paper of Lu[1] were based on nine questions, which means that the burnout score has a minimum score of 0 and a maximum score of 18. The table below shows the relationship between burnout score and the various organizational climate factors.

The model summary shows that the variables in the model explains up to 22.3% of the variance in the dependent variable. The variables significant to predicting burnout score are Autonomy on Quality, Skilled Work Content, Physical Work Content, Hazardous Work Content, Health, Safety, and Compensation, and Upskilling and Training Index. A one-point increase in the Autonomy on Quality index corresponds to an average of 0.02 decrease in the burnout score, suggesting that a higher autonomy on the speed, how much work is done, and how work is done decreases probability of burnout. A one-point increase in the Skilled Work Content index corresponds to an average of 0.021 points increase in the burnout score, suggesting that the more hazardous work is, the more is the likelihood of burnout. A one-point increase in the Physical Work Content index corresponds to an average of 0.037 points increase in the burnout score, suggesting that the more physical work is involved, the more is the likelihood of burnout. Also, a one-point increase in the Hazardous work content index corresponds to an average of .022 points increase in the burnout score, suggesting that the more hazardous work is, the more is the likelihood of burnout. Health, safety and compensation index also increases burnout score by .228 points for every one point increase, suggesting that better health, safety, and compensation benefits increase the likelihood of burnout. Upskilling and Training index also increases burnout score by .057 points for every one point increase, suggesting that upskilling and training increases the likelihood of burnout (Table 3).

Linear regression between "Burnout Score" was also done for workplace accidents, self-reported illnesses, and hazard exposures as independent variables. The variables included in the model are selected through stepwise selection with an inclusion criteria of .05 and exclusion criteria of .10. Workers who got wounded within the last 6 months have a burnout score 2.10 points higher on average than those who did not. Workers who experienced eye infection by dust particles have a burnout score 1.12 points higher on average than those who did not. Workers who experienced electrical accidents have a burnout score 1.07 points higher on average than those who did not. Workers who experienced skin allergies have a burnout score 2.35 points lower on average

Table 2. Poisson Regression for Number of Experienced Sickness Within the Last 6 Months (N=333/344)

Parameter	B	Std. Error	Sig.	Risk Ratio	95% Wald CI for Risk Ratio	
					Lower Bound	Upper Bound
(Intercept)	0.860	0.193	0.000	2.363	1.620	3.447
Autonomy on Quality Index	-0.002	0.001	0.021	0.998	0.996	1.000
Autonomy on Rest Index	-0.001	0.001	0.287	0.999	0.997	1.001
Skilled work content Index	0.002	0.002	0.281	1.002	0.999	1.005
Physical work content Index	0.004	0.001	0.002	1.004	1.001	1.006
Hazardous work content Index	0.001	0.001	0.614	1.001	0.998	1.003
Health, Safety, and Compensation Index	-0.003	0.007	0.655	0.997	0.983	1.011
Upskilling and Training Index	-0.002	0.003	0.373	0.998	0.992	1.003
Personal worker perception Index	0.007	0.001	0.000	1.007	1.005	1.010
Worker Stress Index	0.002	0.001	0.128	1.002	0.999	1.004

Table 3. Linear Regression Model on the Dependent Variable "Burnout Score" with organizational climate indices as independent variables (N=337)

Parameters	Parameter Estimates	Std. Error	Sig.	95% CI for B	
				Lower Bound	Upper Bound
(Constant)	4.058	1.211	0.001	1.676	6.441
Autonomy on Quality Index	-0.020	0.006	0.002	-0.032	-0.008
Autonomy on Rest Index	-0.011	0.007	0.090	-0.024	0.002
Skilled work content Index	0.021	0.010	0.031	0.002	0.040
Physical work content Index	0.037	0.008	0.000	0.022	0.052
Hazardous work content Index	0.022	0.008	0.006	0.006	0.037
Health, Safety, and Compensation Index	0.228	0.044	0.000	0.142	0.314
Upskilling and Training Index	0.057	0.018	0.002	0.022	0.092

Table 4. Linear Regression Model on the Dependent Variable "Burnout Score" with workplace accidents, self-reported illnesses, and hazard exposures as independent variables (N=164)

Parameters	Parameter Estimates	Std. Error	Sig.	95% CI for B	
				Lower Bound	Upper Bound
(Constant)	6.620	0.389	0.000	5.852	7.388
Worker got wounded within the last 6 months	2.101	0.661	0.002	0.795	3.407
Worker experienced eye infection by dust particles	1.124	0.312	0.000	0.508	1.739
Worker is exposed to high temperatures in the workplace	1.386	0.337	0.000	0.720	2.051
Worker experienced electrical accidents at the workplace	1.076	0.482	0.027	0.124	2.028
Worker experienced having skin allergies within the last 6 months	-2.352	0.663	0.001	-3.661	-1.043
Worker is exposed to dust in the workplace	0.795	0.348	0.024	0.108	1.481
Worker experienced having eye problems within the last 6 months	1.170	0.518	0.025	0.148	2.193

than those who did not. Workers who are exposed to dust in the workplace have a burnout score .795 points higher on average than those who did not. Workers who experienced eye problems have a burnout score 1.17 points higher on average than those who did not (Table 4).

RESULTS AND DISCUSSION

The state of occupational health and safety of female factory workers is described through the relationship of occupational climate and the following: experienced workplace accidents and self-reported illness. According to Wong, Chan and Ngan,[16] promotion of occupational health and safety, control of work-related illnesses, and elimination of workplace hazards starts with identifying the factors affecting the employees.

According to the WHO,[4] burnout is a group of symptoms which is manifested by unmanaged chronic stress due to occupation. They added that it is classified as burnout if the three are present, which are "feelings of exhaustion/tiredness, detachment or increased mental distance, or negative attitude on one's work". It was found out that burnout may have an effect on the physical aspects such as that of "increased cholesterol in the blood, Type 2 Diabetes Mellitus, Coronary Heart Disease, Cardiovascular disorder, musculoskeletal pain, changes in pain experiences, prolonged fatigue, headaches, gastrointestinal issues, respiratory problems, severe injuries and mortality below the age of 45 years". Psychological effects, on the other hand, include "insomnia, depressive symptoms, use of psychotropic and antidepressant medications, hospitalization for mental disorders and psychological ill-health symptoms". There are also professional outcomes, named as: "Job dissatisfaction, absenteeism, new disability pension, job demands, job resources and presenteeism".[15] However, burnout is not just the problem of the individual. According to Salvagioni et al.,[17] there may be consequences that are not favorable and this may affect not only the worker, but also their families, workplace environment and the organizations themselves.

Due to this, this phenomenon must be reduced and prevented. Adlakha[5] highlighted the importance of reducing burnout by eliminating the factors that affect it and it was added that it is not only the responsibility of the individual, but the organization through their policies and the occupational safety and public health workers as well. The burden of ill and injured workers doesn't just affect them and their families, the organizations and the employers are affected as well. Because of this, it is important to promote healthy and safety workplace environment and culture.[5] Mehrad[18] stated that job burnout encompasses the physical, emotional, and mental state of the workers that may have resulted from the difficult working environment, culture, and may have been a cause of modernization. Another study focused not only on burnout, but also compassion satisfaction and a secondary traumatic scale.[19] Burnout is positively correlated with secondary traumatic scale while it has a negative correlation with compassion satisfaction.[19] Maslach theorized that Job Burnout is a result of chronic mismatch between a person and their worklife in areas such as workload, control, reward, community, fairness, and values. She noted that these six areas are the major organi-zational antecedents of burnout. In this study, this model is replicated by the significant organizational factors affecting burnout which are job autonomy (autonomy on quality and rest), work content (skilled work, physical work, hazardous work), health, safety and compensation, and upskilling and training.[15]

The results showed that among female factory workers in the Philippines, burnout was significantly positively correlated to almost all experienced workplace accidents. This implies that there should be health programs such as stress management for workers. Along with this, the workplace environment should continuously be inspected for workplace hazards. Safety protocols should as well be followed. According to Alves et al.,[20] the workers' adherence to the protocols on safety in their study on workplace accidents were approved and followed by the majority (79%) outsourced workers, and it had a negative correlation with occupational accidents. Workers should be given enough job autonomy in order to reduce numbers of workplace accidents.

Although results showed that as burnout index increases, the workplace accidents also increase, these should still be provided by employers, companies, or the government. It was stated in a study by Alves et al.[20] that the factors that were associated with accident occurrence for employees were the following: "personal/behavioral factors, which are self-efficacy, discipline, and rule adherence (agreeableness), super-optimism, and financial situation". Aside from this, their own "attitudes to safety, satisfaction in their jobs, organizational culture in the workplace, and the safety climate, and safety program" also contributed to accident incidence. On the other hand, they found out that "organizational factor variables which are communication consistency, culture and security climate, participative decision-making, and employment stability" were the factors affecting the accident for in-house employees. In addition, they stated that the following factors also increased the incidence of work accidents: attitudes to safety of the manager, the physical environment, and the workload.[20] The results of the study in the Philippines on female factory workers highlight the importance of having a good occupational climate, and good occupational health and safety programs.

The relationship between burnout and illnesses were also established to be correlated in this study using Pearson's correlation, specifically, with the illnesses, which happened in the past 6 months, include headache, cough and colds, eye problems, and bodyache. According to Park and Kim,[2] there are health risks and hazards found in the workplace that threaten the worker's health and safety. These workplace hazards may be compared with the components of occupational climate's physical work index and hazardous work index. The examples that they enumerated include "heat/variations in temperature, noise, dust, hazardous chemicals, biological or ergonomic hazards, unsafe machines and psychological stress".[2] In a study by Hanvold et al.,[21] they studied the factors that led to workplace injuries. They named the following factors to be associated with injuries in young Nordic laborers, which are physical or mechanical psychosocial, and organizational factors. Furthermore, they found out that skin reactions or injuries were attributed to chemical exposures and problems such as back pain were associated with lifting heavy objects, poor body mechanics and posture, and mental health problems were associated with increased demands and workplace stressors.[21] Their research supports the findings of the study and thus, these must be utilized to reduce and prevent workplace injuries.

Lastly, the variables significant to predicting burnout score are Autonomy on Quality, Skilled Work Content, Physical Work Content, Hazardous Work Content, Health, Safety, and Compensation, and Upskilling and Training Index. It is possible that workplace factors may not only cause an individual to develop an illness, but also lead to burnout. These things may lead to problems with the psychologic and physiologic aspect of the worker.[22] Possible exposures from environmental hazards such as "coal dust, silica dust, asbestos dust, benzene, lead, and noise" may also lead to illness/disease development and an individual to experience easy fatiguability.[20] Hanvold et al.,[21] in their study, discussed how the different occupational climate factors led to an increased risk for developing illnesses such as being exposed to chemical substances were associated with skin reactions, Heavy lifting and awkward postures may lead to low back pain, and high job, and increased demands in job may lead to problems with the mental health or psychological aspect.[21]

CONCLUSION

This study showed that female factory workers in the Philippines are experiencing burnout in the workplace, and burnout is affected by organizational climate factors. In this study, organizational climate indices were identified as Autonomy on Quality, Skilled Work Content, Physical Work Content, Hazardous Work Content, Health, Safety, and Compensation, and Upskilling and Training Index. These organizational indices were found to be correlated with burnout. It was also shown in this study that burnout is associated with illnesses and experiencing accidents in the workplace, as well as exposure to hazards. Therefore, there is a need to address all these organizational factors affecting burnout in the workplace.

The study recommends that efforts of the government and multiple industries should focus on the enhancement of the work conditions of laborers. Improvement of the occupational health and safety of the workers have several advantages such as the following: prevention of accidents, noncommunicable diseases and other illnesses, hiring of healthy and well workers will be beneficial for business owners, and economic stability and sustainability will be made possible due to the healthy working age population.[2]

Existing laws should be regulated and updated as necessary to protect the rights and welfare of workers in these changing times. Examples of these may be increases in salaries, provision of benefits, occupational hazard pays, paid vacation leaves, personal protective equipment, regularization, and construction of safe work facilities. As these efforts may lead to an impact on the industries' productivity and the economy.

Statement of Authorship

The author confirms sole responsibility for the conceptualization of work, acquisition and analysis of data, drafting and revising, and final approval of the version to be published.

Author Disclosure

The author declared no conflicts of interest.

Funding Source

This study is registered with the Research Grants Administration Office and implemented through the National Institutes of Health, University of the Philippines Manila.

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APPENDIX

Appendix 1. Mean, Proportion and Factor Analysis of Burnout and Organizational Climate Indices for Job Autonomy, Content of Job, and Nature of Management

Items	Mean	SD	Component	Variance Explained (%)	Cronbach's Alpha
Burnout					
Work is boring	0.2598	0.560	Burnout		0.712
Work is repetitious	1.3172	0.890			
Work requires fast pacing	1.0846	0.917			
Work produces pressure on the part of the worker	1.1450	0.929			
Work is too much and not proportional to salary	0.6526	0.861			
Worker encounters conflict of priorities between work and family	0.7039	0.858			
Work requires upskilling regularly	1.6193	0.762			
Work is physically and mentally tiring	0.9668	0.888			
Salary is not enough to meet worker's needs	1.4139	0.831			
Job Autonomy					
Worker may decide how he/she would finish work	1.510	0.809	Autonomy on Quality	36.918	0.592
Worker may decide how fast he'd/she'd work	1.310	0.899			
Worker may decide how much he'd/she'd accomplish	1.200	0.921			
Worker may take rest breaks aside from scheduled rest breaks	0.580	0.838	Autonomy on Rest	28.378	
Worker may decide to slow down his/her pace	0.370	0.724			
Items	**Proportion**	**SD**	**Component**	**Variance Explained (%)**	**Cronbach's Alpha**
Content of the Job					
Work requires much knowledge and skill	0.869	0.338	Skilled work content	21.22	0.413
Work requires strict visual inspection	0.433	0.496			
Work requires severe mental concentration	0.773	0.419			
Work requires heavy physical load	0.192	0.394	Physical work content	20.565	
Work requires awkward positions while working	0.134	0.341			
Work involves handling chemicals	0.215	0.412	Hazardous work content	17.769	
Work involves exposure to radiation	0.241	0.429			
Nature of Management					
Health and Safety policy posted at the workplace	0.866	0.341	Health, Safety, and Compensation	42.988	0.735
Company gives seminars on healthy and safe living	0.733	0.443			
Worker participates in seminars held by his/her employer	0.625	0.485			
Workers are entitled to compensations/benefits given by the company	0.852	0.356			
Company has policies covering giving promotions and trainings to workers	0.590	0.493			
Worker is entitled to an insurance for accidents happening in the workplace	0.532	0.500			
Company has policies against harassment and discrimination among workers	0.724	0.448			
Company holds programs and trainings to develop skills of workers	0.642	0.480	Upskilling and Training	16.417	
Worker participates in programs and trainings held by his/her employer	0.648	0.478			