Family and organization roles in disaster risk reduction: 

Burnout reduction on workers

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Abstract. Research and theories on the role of families and organizations in reducing disaster risk are still limited to home and corporate efforts on the physical aspects of disasters risks. Psychological factors are yet rarely addressed by families and organizations. This psychological factor can be the cause behind by the failure of the workforce in the industry and health personnel in the healthcare institution in implementing safe and careful work procedures, increasing disaster risks and disaster impacts. In turn, this can be caused by burnout, a psychological problem in the worker or health worker. This paper develops a conceptual framework to describe what steps can be taken by families and organizations in reducing burnout to workers and health workers. The concepts of work-family conflict and psychological therapies are introduced to explain burnout interventions that families and organizations can manage in the context of disaster risks and disaster impacts reduction.

1. Introduction

While the risk of natural disasters is largely due to natural factors, the severity of the impact of natural disasters comes from human factors. The severity of the impact of natural disasters is determined by political, physical, economic, and social vulnerability [1]. In the context of non-natural disasters such as technological failure, modernization failure, epidemics, and disease outbreaks, the human factor is even a major cause [2]. Therefore, the handling of human factors is essential to prevent non-natural disasters and minimize the impact of natural disasters.

Burnout is one of the human factors that play a role in raising the risk of non-natural disasters and exacerbate the impact of natural disasters. Burnout is a reaction to work pressure characterized by fatigue, cynicism, and a sense of loss of professional efficacy [3]. Burnout is known to have an impact on the high risk of occupational accidents on workers who experience it, and potentially also affect the people around him [4].

Meanwhile, the relationship between burnout and natural disasters is less frequently argued. More research sees that burnout is a consequence of natural disasters on health workers and other workers who respond to disasters, not as antecedents to the disaster [5]. However, a logical path can be built. Burnout in addition to causing the risk of accidents also affects job dissatisfaction and disruption to physical and mental health [6]. Physical and mental health disorders are part of the health vulnerability, which in turn is part of the physical vulnerability factor [7]. For example, it is known that people who experience burnout can take coping steps by taking illegal drugs, which makes them unable to respond well to disaster situations [8].
Also, people who experience burnout may experience depression or low physical health status, which in turn makes them vulnerable to becoming victims of natural disaster events that could otherwise be avoided if the person is healthy and has a high-spirited life. Similarly, weary construction workers can ignore safety aspects in construction, resulting in poor construction. Combined with the absence of surveillance and catastrophic events, the construction of bridges and buildings may collapse due to natural disasters. This should not happen if the worker does not experience burnout during construction. This framework of causality can be illustrated in figure 1.

Figure 1. Burnout and Disaster Relation

Burnout occurs due to unpredictable and demanding work environments as well as many other factors in the work environment [9]. Efforts have been made to reduce burnout in the workplace and society [10]. This article will develop the framework that families and organizations need to adopt to reduce burnout to reduce the vulnerability of public health in the face of natural disasters as well as to prevent the potential for non-natural disasters and accidents

2. Burnout Theory

Burnout is a feeling that relates to helplessness and difficulty in dealing with work or working effectively, generally forming gradually, and can be the result of high workload or because of an unsupportive environment [11]. Burnout consists of three subtypes namely phrenetic, under-challenged, and worn-out [12]. The phrenetic burnout is when one feels that the work is getting heavier until they are tired [13]. Individuals experience excessive workload and feel that they risk their health and personal life to achieve good results in work [14]. Individuals try to do several things at once and look workaholic by spending a lot of time to work [15]. Individuals tend to be sensitive to their environment and easily complain about the organizational structure in which they work [16].

Burnout of the under-challenged type is characterized by disinterest with work, boredom, and lack of self-development of its work, resulting from lack of stimulation, monotony in work, lack of training and attention from superiors, and the desire to work on other jobs [17]. The pressures faced by the individual are caused by feeling trapped in his work, leading to a lack of motivation and capacity [18]. Burnout type worn-out is characterized by lack of control, lack of recognition, and neglect and rejection when faced with stress and lack of gratification [19]. Individuals are not concerned and do not care when given the responsibility for feeling inefficiency [20]. In other words, frenetic burnout leads to exhaustion.
because it continues to work optimally, burning the under-challenged type leads to boredom and lack of enthusiasm for continuing to do the same thing, and worn-out burnout carries on indifference as it constantly gets no recognition.

Various factors have been identified as factors that lead to burnout. These factors include red tape, overly fussy clients or bosses, lack of support from supervisors, lack of social integration, and many self-doubts about the job [21]. Also, role conflict, role ambiguity, and excessive role burden also affect improving burnout [22]. From the perspective of the theory of self-determination, the need for competence, autonomy, and linkage are known to negatively affect burnout [23].

3. The Role of Family and Organization in Reducing Burnout
Previous research has generally only directed the role of the organization in reducing burnout under the assumption that burnout is merely an organizational problem. However, role theory asserts that burnout is caused by role problems such as role conflict, role ambiguity, and excessive role burden. This role conflict can occur in the form of a family work conflict. A family work conflict is a situation where work in the office is brought home and vice versa; homework is brought to the office [24]. This results in role conflict which in turn makes the individual experience burnout. Also, the family should also play a role in reducing burnout because the family becomes a safe place for individual workers after being tired of working. The ability of families to reduce burnout can be even greater through the active role of the family, thus providing more benefits for employees as well as for the family.

3.1. The family's role in burnout reduction.
To determine the role of the family in burnout, it is important to note the individual targeted by the intervention about the family work conflict. The border theory distinguishes between two human types: segmenters and integrators [25]. Segmenter or separator is a person who actively seeks to separate between the roles he has.

Meanwhile, an integrator is a person who actively seeks to combine the roles he or she possesses. For segmenters, borders are very inflexible and not permeable, while for integrators, borders are flexible and permeable. Segmenters will select jobs that have a clear border while integrators will choose jobs that have borders with high flexibility.

The role of families in segmenters is to try to support workers by not intervening in their work. When workers are with families, families should restrict the access of companies or organizations to contact the worker. This can be done strictly by blocking access between workers and organizations. Gentle moves can be done by diverting the workers’ attention as far as possible to the family so there is no time for the worker to get distracted on the job.

The family role of an integrator is the opposite, trying to provide support for the worker when he works, thus increasing his morale. Also, the family needs to open up a wide space for intervention by the company, for example by providing a direct relationship with the organization whenever necessary. Also, families should keep themselves to not complain about worker activity that may be considered excessive in providing the portion of work than the family. Remember that this work is an integrator so that even if she is not physically present to the family, she thinks of family and is open to being able to be contacted and asked for attention by the family at work.

3.2. The role of the organization in burnout reduction.
Is a wealth of literature on how organizations need to address burnout issues with their workers. These steps can be either direct intervention or organizational steps. The intervention measures can be both preventive and careful. Preventive measures can be MST-CS (Multimodal Skills Training for Coping with Stressors), MBI (Mindfulness-Based Intervention), psychosocial interventions, and of course routine burnout rating [26]-[28]. Meanwhile, treatment intervention measures can be CBT (Cognitive Behavioral Therapy), physiological regulation, self-pity programs clarification of life and work values, ACT (Acceptance and Commitment Therapy), BAT (Behavioral Activation Therapy), and if necessary pharmacotherapy interventions [29]-[33].
Organizational steps to reduce burnout will be specific to the type of burnout facing employees. Burnout frenetic types can be overcome by changing the workload of employees and the definition of success in a job. Burnout type under challenged can be improved by increasing the level of employee challenges. Burnout type worn-outs can be fixed by changing organizational rewards system [12].

3.3. Conceptual framework for family and organizational roles in burnout reduction.

The combination of family roles and the role of the organization in burnout reduction resulted in a comprehensive framework that enabled conflicting organizations and families and enlarged worker burnouts, in fact working together to reduce burnout. In turn, this cooperation will reduce the risk of non-natural disasters and reduce the impact of natural disasters faced by individual workers, organizations, and their families. This comprehensive framework is shown in Figure 2. It can be observed that family interventions are generally supportive of worker characteristics while organizational interventions are more directed at the burnout characteristics faced by workers

![Figure 2. Comprehensive Framework the Role of Families and Organizations in Burnout Reduction](image)

Based on the picture above, the following conceptual framework in this study is shown in figure 3.

![Figure 3. Conceptual Framework](image)
4. Objective
1. Analyze the influence of the family to reduce Worker Burnout
2. Analyzing the influence of the organization Reducing Worker's Burnout

5. Hypothesis
H1: There is a significant relationship between families with Burnout workers
H2: There is a significant relationship between the organization and Burnout workers

6. Method
Data collection was conducted by survey method, i.e. by selecting the sample proportionally among the population. The survey result data is a cross-section data, which is a collection of data obtained from the research at one point in time, where data varies according to the characteristics of respondents not based on coherence time (time series). Cross-sectional design is one of the kinds of quantitative research design that is analytic and is included in observational research type.

Epidemiologically this design aims to answer the question of the relationship between the effect and its cause, by observing the cause and effect status of individuals of a population.

The population in this study are: Employees who have status as permanent employees working in PT Vale Indonesia Tbk, PT KPC (Kaltim Prima Coal Tbk), PT Puma Jaya Utama and PT Sawerigading Utama. The population is distinguished between the sampling population and the target population. The sampling population is all employees who work in the mining department at the operator level. The target population is all employees in the mining department.

Questionnaires distributed to respondents through two ways (1) direct researchers submit to respondents (2) Researchers submit to HR to be distributed to employees. The return of the questionnaire was submitted directly to the researcher after the respondent completed the questionnaire.

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Based on the distribution of questionnaires, Given the number of populations, the degree of uniformity of population and precision desired, then in this study, the overall sample size is set at 10% of the target population then the number of sampling research is PT. Vale Indonesia: 82 people, PT KPC (Kaltim Prima Coal): 41 employees, PT Puma Jaya main: 21 employees and PT Sawerigading: 12 employees.

6.1. Technical Data Analysis.
For descriptive and inferential analysis, the existing survey data results are processed using the EXCEL and SPSS (Statistical Package for Social Science) programs. Hypotheses were tested using SEM (Structural Equation Model) analysis. SEM analysis consists of measurement and structural model through AMOS (Analysis of Moment Structures) program

6.2. Descriptive Family Statistics.
Based on the results of descriptive statistics, it is known that the Descriptive Family means value ranging from the lowest of 1.14 for items staying at home in-laws and the highest is 5.89 for the youngest child item. Standard storage 0.37 to 4.66.
Table 1. Descriptive Family Statistics

| Number | Item                                                      | Mean | Information  | Std. Deviation |
|--------|-----------------------------------------------------------|------|--------------|----------------|
| X1.1   | Number of children                                        | 2.69 | Min = 0, max = 7 | 1.28           |
| X1.2   | Age of youngest child                                     | 5.89 | Min = 0, max = 19 | 4.66           |
| X1.3   | Number of children who attend school                       | 1.99 | Min = 0, max = 4  | 1.18           |
| X1.4   | Number of children who attend school and stay home        | 1.67 | Min = 0, max = 4  | 1.14           |
| X1.5   | Single Parent                                             | 1.15 | Yes = 23, No = 126 | 0.37           |
| X1.6   | The husband works                                         | 1.73 | Yes = 110, No = 36  | 0.48           |
| X1.7   | Living in an old man's home                               | 1.17 | Yes = 28, No = 119  | 0.42           |
| X1.8   | Stayed at the in-laws house                               | 114  | Yes = 22, No = 124  | 0.38           |
| X1.9   | Age of marriage                                           | 13.20| Min = 0, max = 30  | 8.15           |

Source: Primary Data Processed 2018.

6.3. Descriptive Statistics Organization.

Table 2. Descriptive Statistics Organization

| Number | Indicator                                                    | Mean | Assessment | Std. Deviation |
|--------|--------------------------------------------------------------|------|------------|----------------|
| X2.1   | Teamwork in the organization                                 | 4.45 | Very well  | 1.10           |
| X2.2   | Flexibility and Organizational Resiliency                    | 4.08 | Good       | 1.23           |
| X2.3   | Organizational Decision                                     | 4.44 | Very well  | 1.04           |
| X2.4   | Organization Participates in Problem Solving                 | 4.42 | Very well  | 1.07           |
| X2.5   | Help Lead yourself                                          | 4.13 | Good       | 1.28           |
| X2.6   | Focus on people who need to be served                        | 4.12 | Good       | 1.27           |
| X2.7   | Training                                                    | 4.31 | Very well  | 1.12           |
| X2.8   | Influence                                                   | 4.10 | Good       | 1.29           |
| X2.9   | Building interpersonal relationships                          | 4.13 | Good       | 1.26           |
| X2.10  | Oral communication                                          | 4.24 | Very well  | 1.19           |

Source: Primary Data Processed, 2018.

Based on the results of descriptive statistics, it is known that the workers have excellent criteria in the field of teamwork in the organization, organizational decisions, organizations participate in problem-solving, training, and oral communication. Lower items include flexibility and resiliency, self-direction, focusing on people who need to be served, influencing, and building interpersonal relationships. The average organizational article is 4.24 and the standard deviation averages 1.19.
6.4. Descriptive Burnout Statistics.

Table 3. Burnout statistics

| Number | Indikator                                      | Mean | Assessment | Std. Deviation |
|--------|-----------------------------------------------|------|------------|----------------|
| Y1.1   | Feel tired                                    | 3.28 | Fair       | 1.43           |
| Y1.2   | Feeling physically exhausted                  | 3.28 | Fair       | 1.38           |
| Y1.3   | Feeling mentally exhausted                    | 2.94 | Good       | 1.49           |
| Y1.4   | "Thinking "I can not do it anymore."         | 2.34 | Good       | 1.52           |
| Y1.5   | Feeling powerless                             | 2.77 | Fair       | 1.52           |
| Y1.6   | Feel weak and vulnerable to illness           | 2.77 | Fair       | 1.49           |
| Y1.7   | Feeling powerless after work                  | 2.88 | Fair       | 1.51           |
| Y1.8   | Fatigue in the morning when thinking about    | 2.60 | Good       | 1.48           |
|        | going to work again                           |      |            |                |
| Y1.9   | Do not have the energy for family and friends | 2.66 | Fair       | 1.50           |
| Y1.10  | Feeling working in an exhausting field        | 2.67 | Fair       | 1.51           |
|        | mentally                                      |      |            |                |
| Y1.11  | Feel working in a frustrating field           | 2.47 | Good       | 1.42           |
| Y1.12  | Feeling exhausted from work                   | 2.49 | Good       | 1.48           |
| Y1.13  | Feel difficulty working with colleagues       | 2.48 | Good       | 1.53           |
| Y1.14  | Feeling running out of energy working         | 2.44 | Good       | 1.47           |
|        | with colleagues                               |      |            |                |
| Y1.15  | Feeling frustrated while working with         | 2.56 | Good       | 1.57           |
|        | colleagues                                    |      |            |                |

Source: Primary Data Processed 2018.

Most items have enough judgment. Seven items have good ratings, indicating that respondents still feel able to work, fit when ready to work, work in a job that is not frustrating, still have energy after work, and easy to work with colleagues. The average score is 2.71 with a standard deviation of 1.49.

6.5. Bivariate Analysis

The result of the bivariate analysis is shown in the following table:

Table 4: Bivariate Correlation Table Research Variables Burnout

| ITEM                                      | X2   | Y1   | X1.1 | X1.2 | X1.3 | X1.4 | X1.5 | X1.6 | X1.7 | X1.8 |
|-------------------------------------------|------|------|------|------|------|------|------|------|------|------|
| X2. Organization                          |      |      |      |      |      |      |      |      |      |      |
| Y1. Burnout                               | -0.04|      |      |      |      |      |      |      |      |      |
| X1.1. Number of children                  | 0.1  | 0.074|      |      |      |      |      |      |      |      |
| X1.2 Youngest Child Age                   | -0.12| 0.159| 0.118|      |      |      |      |      |      |      |
| X1.3 Number of Children in School        | .239**| 0.075| .415**|      |      |      |      |      |      |      |
| X1.4 Number of Children Schooled and     |      |      |      |      |      |      |      |      |      |      |
| Staying at Home                           |      |      |      |      |      |      |      |      |      |      |
| X1.5 Single Parent                        | 0.061| 0.155| 0.003| -0.02| 0.055| 0.157|      |      |      |      |
| X1.6 Husband Works                        | 0.101| -0.05| 0.049| 0.033| -0.00| 0.041| 0.132|      |      |      |
| X1.7 Living in an old man's home          | -0.01| 0.008| 0.056| -0.06| -0.06| -0.11| .346**|      |      |      |
| X1.8 Stayed at the in-laws house          | 0.123| 0.017| 0.06 | -0.04| -0.02| -0.08| .333**| 0.149|      | .767**|
| X1.9 Age of Marriage                      | 0.054| .174*| .472**| .505**| .510**| .287**| -0.03| 0.045| -0.13| -0.03|

** significant at p <0.01; * significant at p <0.05; source: data processed.
The result of bivariate analysis above shows the following conclusions:

a. The number of children in school correlates with the organization positively with a correlation coefficient of 0.239 with a significance level of <0.01.

b. The number of children in school correlates with the number of children positively with the correlation coefficient of 0.415 and the significance level of <0.01.

c. The number of children who attend school and stay home is positively correlated with the number of children with a correlation coefficient of 0.456 and the significance level of <0.01.

d. The number of children attending school and living at home is positively correlated with the number of children attending school with a correlation coefficient of 0.523 and a significance level of <0.01.

e. Staying in a parent's house correlated with single parent positively with a correlation coefficient of 0.346 and a significance level of <0.01.

f. Staying at home in-laws correlated with single parent positively with correlation coefficient 0.333 and significance level <0.01.

g. Staying at home in-laws correlates with remaining in a parent's house positively with a correlation coefficient of 0.767 and a significance level of <0.01.

h. Age of marriage correlated with burnout positively with correlation coefficient 0.174 and significance level <0.05.

i. The age of marriage correlates with the number of children positively with the correlation coefficient of 0.472 and the significance level of <0.01.

j. The age of marriage correlates with the youngest child's age positively with the correlation coefficient of 0.505 and the significance level <0.01.

k. The age of marriage correlates with the number of children who attend school positively with a correlation coefficient of 0.510 and a significance level of <0.01.

l. Marriage age correlates with the number of children attending school and living at home are positively associated with correlation coefficient 0.287 and a significance level of <0.01.

6.6. Multivariate Analysis.

Variable normality is checked by calculating skewness and kurtosis of 14 variables studied (X2, X1.1 - X2.9, Y1).

| Table 5. Normality Test Tables Research Variables Burnout |
|---------------------------------------------------------|
|               | Mean Statistic | Std. Deviation Statistic | Skewness Statistic | Std. Error  | Kurtosis Statistic | Std. Error |
| X2            | 4.2423         | .85384                   | -1.193             | .194        | .787               | .386       |
| Y1            | 2.7087         | 1.15223                  | .412               | .195        | -7.07              | .389       |
| X1.1          | 2.6901         | 1.28374                  | .314               | .203        | .426               | .404       |
| X1.2          | 5.89           | 4.656                    | .849               | .202        | -0.67              | .401       |
| X1.3          | 2.1643         | 1.70741                  | 2.775              | .205        | 15.261             | .407       |
| X1.4          | 1.6667         | 1.13952                  | .195               | .209        | -8.37              | .414       |
| X1.5          | 1.15           | .373                     | 1.618              | .198        | 1.965              | .394       |
| X1.6          | 1.73           | .475                     | -1.425             | .199        | .927               | .396       |
| X1.7          | 1.17           | .415                     | 1.140              | .199        | .960               | .395       |
| X1.8          | 1.14           | .381                     | 1.376              | .199        | 2.228              | .396       |
| X1.9          | 13.1957        | 8.15082                  | .317               | .206        | -.779              | .410       |

Source: SPSS 20 Program Output (Processed).
Table 6: Hypothesis Test Results

| Association | Path Coefficient | Standard Error | Critical Ratio | Sig. | Label |
|-------------|------------------|----------------|----------------|------|-------|
| Burnout <= X1.6 | -0.359 | 0.261 | -1.377 | 0.169 | The influence of husbands working against Burnout |
| Burnout <= X1.5 | 0.695 | 0.324 | 2.147 | 0.032 | Influence single parent to Burnout |
| Burnout <= X1.2 | 0.002 | 0.022 | 0.95 | 0.324 | The influence of the youngest child's age on Burnout |
| Burnout <= Organization | -0.434 | 0.170 | -2.550 | 0.011 | Organizational Influence on Burnout |
| Burnout <= X1.1 | 0.041 | 0.079 | 0.527 | 0.599 | Influence of Number of Children to Burnout |

Source: AMOS 20 Program Output (Processed)

Table 7: Significance of the total effect of each variable on burnout

| Variables | Direct Effect | Indirect Influence | Conclusion |
|-----------|---------------|--------------------|------------|
|           | Sig. | Sign | Sig. | Sign |                      |
| Organisasi | 0.011 | Negatif | 0.707 | Positif | There is only a direct influence of the Organization on Burnout |
| X1.1      | 0.599 | Positif | 0.470 | Negatif | There is no direct or indirect influence of the number of children on burnout |
| X1.2      | 0.924 | Positif | 0.213 | Positif | There is no direct or indirect influence of the younger child's age on burnout |
| X1.5      | 0.032 | Positif | 0.038 | Positif | There is a direct and indirect influence of single parent on burnout. |
| X1.6      | 0.169 | Negatif | 0.718 | Positif | There is no direct or indirect influence of husbands working on burnout. |

Based on the above calculation table, it can be drawn conclusions related research hypotheses as follows:

**Hypothesis 1:** There is a significant relationship between families with burnout.

Hypothesis test results are as follows:

a. Variable Number of Children (X1.1)

The significance value for the X1.1 variable about Burnout is 0.599 > 0.050 and the critical ratio is 0.527 < 2, so H8 is rejected, which means no significant relationship between Number of Children with Burnout. This result means that there is no direct influence on the number of children on burnout. In line with this, H2 is rejected for the variable number of children as Family proxies.

b. Youngest Child Age Variable (X1.2)

The significance values for the X1.2 variables about Burnout are 0.924 > 0.050 and the critical ratios 0.095 < 2 so that H8 is rejected, which means no significant relationship between Youngest Child Age and Burnout. This result means that there is no direct influence of the younger child's age on burnout. In line with this, then H2 is rejected for the age variable of the youngest child as a proxy of Family Structure.

c. Single parent variable (X1.5)

The significance value for the X1.5 variable about Burnout is 0.032 < 0.050 and the critical ratio is 2.147 > 2 so that H8 is accepted, which means there is a significant relationship between single parent and Burnout. This relationship is positive, where employees who are a single parent have a higher
burnout rate than employees who are not a single parent. This result means that there is a direct influence of single parent on burnout. Correspondingly, H2 is accepted for single parent variables as Family proxies. This relationship is positive.

d. Variable Husband Working (X1.6)

The significance values for the X1.6 variables about Burnout were 0.169 > 0.050 and the critical ratios -1.377 > -2 so that H1 was rejected, meaning no significant relationship between husbands worked with Burnout. This result means that there is no direct effect of husbands working on burnout. In line with this, H1 is rejected for the husband's working variable as a Family proxy.

Since there is one family variable that has a significant relationship with burnout, it is concluded that H1 is accepted, i.e. there is a significant relationship between family structure in reducing burnout.

**Hypothesis 2**: There is a significant relationship between the Organization and the burnout. The hypothesis test results show the significance for the Organization variable about Burnout is 0.011 < 0.050 and the critical ratio is -2.550 < -2, so Ho is accepted, which means there is a significant relationship between the organization and Burnout. Relationships are negative which means the higher the organization, the lower the burnout perceived. This result means that the organization directly affects the reduction of burnout. In line with this, H2 is accepted that there is a significant relationship between the organizations in reducing burnout, noting that this relationship is direct.

7. Discussion

7.1 Organizational relations and burnout.

The statistic test results show the significance value for the organizational variable in relation to burnout is 0.011 < 0.050 and the critical ratio is -2.550 < -2, so Ho is accepted, which means there is a significant relationship between the organization with burnout.

The organization has a direct negative effect on burnout. This can happen because in the organization of the organization leaders can tame to prevent stress and maintain work balance. Also, organizational leaders in making decisions, problem-solving, and self-directed leadership indicators in a good organization in reducing employee burnout. The organizations with high leadership competence should lead to a low burnout because organizations with good leadership lead to the empowerment of subordinates and hence, making it easier for employees to see their work more meaningful [34].

The personal characteristics of an organization's leader were able to lower burnout. Another explanation is that organizations with competent leaders provide the knowledge, skills, and abilities necessary to reduce burnout. This is because knowledge, skills, and abilities provide the choice of effective coping strategies in the face of burnout. Employees in organizations lacking leadership competence in specific role assignments and objectives are not equipped with the behaviors and skills necessary to produce an effective coping strategy to reduce burnout [35].

According to Maslach, Burnout is more common in younger age groups. One explanation for this is that older people have more work experience than younger people. Another explanation is that the first bout of burnout that may occur in the first years of one's career. If people have difficulty handling burnout at this time, they leave their profession entirely, or they change their work. Therefore, people who cope well with the strain of work and who manage to handle the threat of burnout in the early years of their careers live to do well in their careers [36].

7.2 Family relations and burnout.

In this study there is one family variable that has a significant relationship with exhaustion, hence concluded that Ho accepted, that there is a significant relationship between the family structure with burnout.

The significance value for the X4.5 variables in relation to burnout is 0.032 < 0.050 and the critical ratio is 2.147 > 2 so Ho is accepted, which means there is a significant relationship between single parent
and burnout. This relationship is positive, where employees who are single parent have a higher burnout rate than employees who are not single parent.

Single parent is positively significant directly in the burnout. The single parent situation by itself has resulted in fatigue in employees. Research, in general, confirms the results of the present study. Research on hospital nurses found that single parent had a significant effect on sleep disorder, which was a strong predictor of burnout [37]. Similarly, the others research found that being single parent affected the occurrence of fatigue disorders work [38]. This is because of the multiple demands to work to fulfill office tasks while working with the family [39]. This finding also matches the results of Erickson [40].

According to Ramirez et al., unmarried is an independent risk factor for burnout. [41] Workers who experience, are often exhausted, while those who are married experience slightly. Divorced employees generally fall between these two groups, those with greater emotional singles, but closer to the married group regarding depersonalization, lower and greater sense of personal achievement [36].

According to Houkes et al., burnout affects both male and female sex; it is more likely to be triggered by depersonalization in men and by emotional fatigue in women. The men suffer from emotional fatigue and higher rates of depersonalization than women [42, 43].

The European Agency for Occupational Safety, explains that individual characteristics, such as age, sex, occupation, occupational status, and environmental perspective and social factors interact with workplace stress [44].

According to Soares et al. that, unmarried men and divorced women have been described to be potential risk groups [45]. Whereas the women are a potential group at risk [46].

Other epidemiological studies in Europe have focused on background variables for teacher fatigue. Risk factors include gender, age, marital status, and classroom level of teaching [47].

A post epidemiological survey among over 20,000 French education workers indicates that female teachers are more prone to high levels of emotional fatigue and less personal achievement, while male teachers are more prone to high levels of depersonalization [48].

A cross-sectional study of Trend Monitoring and Determinants in Cardiovascular Disease (MONICA) reported that in women, the poor socioeconomic position was associated with burnout. Unfavorable working conditions and situational life may explain high rates of burnout in women compared with men [49].

According to WHO, gender disparity is even higher in developing countries In this region; women are heavily influenced by the balance between work and home, with consequences when poverty, unemployment, and poor living conditions. Some of the causes of burnout and job stress that may be more frequent and specific for women include 1). The double roles they have to do at home and work. 2). The role of community gender and the influence of social expectations. 3). Domestic violence [50].

According to Maslach, 2003, theoretically, men and women are quite similar in their burnout experience. Women tend to experience more emotional exhaustion, while men are more likely to have depersonalized and callous feelings at work, Maslach 2003. Maslach further explains that there are differences in employment between men and women. [36] The results of several population-based studies there is shown that more women than men suffer from burnout [49].

However, research by Tokuda et al. 2009, explains that gender differences become nonsignificant when other factors are taken into account. Also, men have less willingness to recognize fatigue than women [51]. In the Work Life study, women were 1.6 times more likely to burn out than men. The likelihood increases by 12-15% for each additional 5 hours of work per week for 40 hours [52].

According to Van Hooff et al., increasing employment opportunities for working women has led to higher levels of stress levels due to increased responsibilities at home and work. The two members of the couple entering the workforce become more general, the demands of the work affect or disrupt the life of the home and vice versa have appeared [53].

8. Conclusion
The conclusions obtained in this study include:
1. Single parent is positively related directly and indirectly to burnout. This is because of the multiple demands to work to fulfill the office task and work to manage the family.
2. The organization directly affects negatively on burnout. This is due to the ability of employees to make their work more meaningful in the eyes of family members so that family member can understand and give less stress to employees.

9. Theoretical Implications
1. Only single parent variables are found to play a role in work-family conflict and burnout of some proposed family structure variables. The variable number of children and the age of the youngest children has no significant effect on family burnout and conflict. Therefore, the theoretical concern in the linkage of family structure to burnout should be more focused on the role of parents, rather than family volume.
2. This study found no gender differences in all research variables, indicating that burnout problems can occur in female or male employees, regardless of whether the employee is single, married, or single parent. It demands criticism of gender role theory that women are often harmed more than men in work matters.

References
[1] Boyd E 2003 The Political Determinants of the Impact of Natural Disasters: A Cross-Country Comparison (New Orleans: University of New Orleans).
[2] Kastolani W and Mainaki R 2018 Does educational disaster mitigation need to be introduced In school? SHS Web of Conf. 42 5.
[3] Oosterholt BG, Maes JH, Van der Linden D, Verbraak M J and Kompier M A 2014 Cognitive performance in both clinical and non-clinical burnout Stress 17 400-409.
[4] Gandi J C, Wai P S, Karick H and Dagona Z K 2011 The role of stress and level of burnout in job performance among nurses Ment. Health Fam. Med. 8 181-94.
[5] Kuntz J R, Näswall K and Bockett A 2013 Keep calm and carry on? an investigation of teacher burnout in a post-disaster context New Zealand J. of Psy. 42 83-94.
[6] Nirel N, Goldwag R, Feigenberg Z, Abadi D and Halpern P 2008 Stress, work overload, burnout, and satisfaction among paramedics in IsraelPrehosp. Disaster Med. 23 537-46.
[7] Lane K, Charles-Guzman K, Wheeler K, Abid Z, Graber N and Matte T 2013 Health effects of coastal storms and flooding in urban areas: A review and vulnerability assessmentJ. Env. Public Heal. 2013 1-14.
[8] Schneider M, Gallacchi M B, Goehfing C, Kunzi B and Bovier P A 2007 Personal use of medical care and drugs among Swiss primary care physicians Swiss Med. Weekly 137 121-6.
[9] Hummelvoll J K and Severinsson E 2001 Coping with everyday reality:Mental health professionals’ reflections on the care provided in an acute psychiatric wardInt.J. of Mental Health Nursing 10 56-66.
[10] Shepherd D, Welch D, Dirks K N and McBride D 2013 Do quiet areas afford greater health-related quality of life than noisy areas?Int.J. Env. Res. Public Heal. 10 1284-1303.
[11] McCann I L and Pearlman L A 1990 Vicarious traumatization: A framework for understanding the psychological effects of working with victimsJ. of Traumatic Stress. 3,131-149.
[12] Montero-Márín J, Prado-Abril J, Demarzo M M, García-Toro M and García-Campayo J. Burnout subtypes and their clinical implications : A theoretical proposal for specific therapeutic approachesRev. Psicopatología y Psicol. Clínica. 21 231-242.
[13] Farber BA2000 Treatment strategies for different types of teacher burnoutJ. of Clin.Psy. 56 675-89.
[14] Montero-Márín J, García-Campayo J, Mera D M and del Hoyo YL 2009 A new definition of burnout syndrome based on Farber's proposalJ. of Occup.Med. and Toxicol.4 31.
[15] Montero-Márín J, Prado-Abril J, Demarzo M M, Gascon S and García-Campayo J 2014 Coping with stress and types of burnout explanatory power of different coping strategies Plos One 9
e89090.

[16] Montero-Marín J, Prado-Abril J, Carrasco J M, Asensio-Martínez Á, Gascón S and García-Campayo J 2013 Causes of discomfort in the academic workplace and their associations with the different burnout types a mixed-methodology studyBMC Pub. Heal. 13 1240.

[17] Montero-Marín J, Araya R, Blazquez BO, Skapinakis P, Vizcaino V M and García-Campayo J 2012 Understanding burnout according to individual differences ongoing explanatory power evaluation of two models for measuring burnout typesBMC Pub. Health. 12 922.

[18] Campagne D M 2012 When therapists run out of steamprofessional boredom or burnout?Rev. Psicopatología Psicol. Clínica 17 75-85.

[19] Farber B A 1990 Burnout in psychotherapists:Incidence, types, and trendsPsychoter. Priv. Pract. 8 35-44.

[20] Montero-Marín J, Demarzo M M, Stapinski L, Gili M and García-Campayo J 2014 Perceived stress latent factors and the burnout subtypes: a structural model in dental students PlosOne 9 e99765.

[21] Burke RJ, Greenglass E R and Schwarzer R 1996 Predicting teacher burnout over time: Effects of work stress, social support, and self-doubts on burnout and its consequencesAnxiety, Stress Coping 9 75-261.

[22] Fogarty TJ, Singh J, Rhoads G K and Moore RK 2000 Antecedents and consequences of burnout in accounting: Beyond the role stress model Behav. Res. Account. 12 31-67.

[23] Lonsdale C, Hodge K and Rose E 2009 Athlete burnout in elite sport: A self-determination perspective J. of Sports Sci. 27 785.

[24] Netemeyer RG, Boles J S and McMurrian R 1996 Development and validation of work–family conflict and family–work conflict scalesJ. of App. Psy. 81 400.

[25] Piszczek M M and Berg P 2014 Expanding the boundaries of boundarytheory:Regulative institutions and work–family role management Hum. Rel. 67 1491-1512.

[26] Haberthür A K, Elkuch F M, Holtforth M G, Hochstrasser B and Soyka M 2009 Characterization of patients discharged from inpatient treatment for burnout: use of psychological characteristics to identify aftercare needsJ. of Clin. Psy. 65 39-55.

[27] Cohen-Katz J, Wiley S D and Capuano T 2005 The effects of mindfulness-based stress reduction on nurse stress and burnoutHolist. Nurs. Pract. 19 26-35.

[28] Ewers P, Bradshaw T, McGovern J and Ewers B 2002 Does training in psychosocial interventions reduce burnout rates in forensic nurses? J. Adv. Nurs. 37 470.

[29] Te Brake J H M, Gorter R C, Hoogstraten J and Eijkman M A J 2001 Burnout intervention among Dutch dentists: long term effectsEur. J. of Oral Sci. 109 380.

[30] Regehr C, Glancy D, Pitts A and LeBlanc V R 2014 Interventions to reduce the consequences of stress in physicians a review and meta-analysesJ. Nerv. Ment. Dis. 202 353.

[31] Shapiro S I, Astin J A, Bishop S R and Cordova M 2005 Mindfulness-based stress reduction for health care professionals: results form a randomized trialInt. J. of Stress Manag. 12 74-164.

[32] Ruotsalainen J H, Verbeek J H, Mariné A and Serra C 2014 Preventing occupational stress in healthcare workerCochrane Database Sys. Rev. 12 CD002892.

[33] Vilardaga R, Luoma J B, Hayes S C, Pistorrello J, Levin M E, Hildebrandt M J, Kohlenberg B, Roget NA and Bond F 2011 Burnout among the addiction counseling workforce the differential roles of mindfulness and values-based processes and work-site factors J. Subst. Abus. Ther. 40 323-335.

[34] Schermuly C C, Schermuly R A, and MeyerB2011 Effects of vice-principals’ psychological empowerment on job satisfaction and burnout. Int. J. Educ. Manag. 25 252-264.

[35] MaslachC, SchaufeliWB and LeiterMP 2001 Job burnoutAnnu. Rev. Psychol. 52 397-422.

[36] MaslachC2003 Burnout: Cost of Caring(Cambridge: Malor Books).

[37] Zencirci A D and Arslan S 2011 Morning-evening type and burnout level as factors influencing sleep quality of shift nurses: a questionnaire study Croat. Med. J. 52 527-537.

[38] HasselbergK, JonsdottirHI, EllbinS and SkagertK 2014 Self-reported stressors among patients with
Exhaustion Disorder: an exploratory study of patient records *BMC psychiatry* **14** 66.

[39] Yanchus N J, Eby L T, Lance CE and Drollinger S 2010 The impact of emotional labor on work–family outcomes *J. Vocat. Behav.* **76** 105-117.

[40] Erickson RJ, Nichols L and Ritter C 2000 Family influences on absenteeism: Testing an expanded process model *J. Vocat. Behav.* **57** 246-272.

[41] Ramirez A J, Graham J and Richards MA 1996 Mental health of hospital consultants: The effect of stress and satisfaction at work *Lancet* **347** 724–728.

[42] Houkes I, Winants Y, Twellaar M and Verdonk P 2011 Development of burnout over time and the causal order of the three dimensions of burnout among male and female GPs. A three wave panel study. *BMC Public Health* **11** 240.

[43] Van HJE, Schaufeli WB, Greenglass ER and Burke RJ 1997 A Canadian-Dutch comparison of teachers’ burnout *Psychol. Rep.* **81**, 371–382.

[44] Milczarek M, Schneider E and González ER 2009 *OSH in Figures: Stress at Work—Facts and Figures* (Santiago de Compostela: European Agency for Safety and Health at Work).

[45] Soares J J, Grossi G and Sundin O 2007 Burnout among women: Associations with demographic/socio-economic, work, life-style and health factors *Arch. Women’s Ment. Heal.*, **10** 61–71.

[46] Bakker ADemerouti E and Schaufeli W 2002 Validation of the Maslach Burnout Inventory general survey: An internet study *Anxiety, Stress Coping* **15** 245–260.

[47] Pomaki G and Anagnostopoulou T 2003 A test and extension of the demand/control/social support model: Prediction of wellness/health outcomes in Greek teachers. *Psychol. Health* **18** 537–550.

[48] Vercambre M N, BrosSELIN P, Gilbert F, Nerrière E and Kovess-Masféty V 2009 Individual and contextual covariates of burnout: A cross-sectional nationwide study of French teachers *BioMed Cent. Public Heal.* **10** 333–344.

[49] Norlund, S., Reuterwall, C., Höög, J., et al. (2010). Burnout, working conditions and gender – results from the northern Sweden MONICA study. *BMC Public Health* **10** 326.

[50] World Health Organization 2002 *Gender Disparities in Mental Health* (Geneva: Department of Mental Health and Substance Dependence).

[51] Tokuda Y, Hayano K and Ozaki M 2009 The interrelationships between working conditions, job satisfaction, burnout and mental health among hospital physicians in Japan: A path analysis *Ind. Health* **47** 166–172.

[52] McMurray J E, Linzer M and Konrad, T R 2000 The work lives of women physicians: Results from the physician work life study *J. Gen. Intern. Med.* **15** 372–380.

[53] Van Hooff MLM, Geurts S AE, Kompier MAJ and Taris TW 2006 Work–home interference: How does it manifest itself from day to day? *Work Stress* **20** 145–162