The Relationship between Workplace Stress with Burnout and Quality of Work Life among Managers and Staffs of the University of Medical Sciences (with an Emphasizing on the Mediating Role of Job Burnout and Workplace Stress)

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Introduction

Due to the prevalence of stress in today’s daily life, some are encouraged to call it the century’s epidemic.1 Despite the term use by various people for different reasons, all refer to the psychological stress, which raises a lot of concern. For many, stress covers a set of negative emotions such as tension, anxiety, anger, and unrest.2 Stress can be defined as the negative outcome of physiological stress affecting the internal system of individuals, which has been stimulated by external stimuli or stressors. For instance, events like divorce, failure in an important exam, or the death of a family member act as a stressful situation, which can cause agitation people.3 Some have a positive image of stress. Success in marriage or bringing a child is stressful events in a person’s life as well. Stress has come to the focus of attention recently as an influencing factor in organizations as it can affect the organizational behavior of employees. Thus, it will have an impact on the returns of organizations.4 Psychological pressure reduces the work efficiency in the organization associated with a devastating physical effect. Intense stress and tension can destroy the mental health of an organization’s human resources, leading to harm the organization’s ultimate goals.5 We can save the time and energy of our employees by improving their ability to cope with occupational and organizational stresses. Such a strategy will enhance the individual and organizational productivity.6 Nowadays, stress is seen as a risk factor for developing mental disorders and illnesses in humans. Certain circumstances make some people experience more stress, while some individuals appear to be more vulnerable to environmental stress due to their personality traits. At the same time, directing people to adapt themselves to the environmental stress seems to be a matter of high importance, while coping with stress is usually unique in case of everyone.7 Such people suspect others and see others like objects rather than people and act negatively toward them.8 Job burnout has emerged as a major issue in the advanced post-industrial era over the past two decades, which has acted like a trap for human resources. Thus, it has turned into one of the crucial concerns of managers and thinkers nowadays.8 It seems that there is a relationship between burnout and psychological stress.9 The presence of an imbalance between environmental demands and an individual’s ability to respond to them leads to psychological stress. The job burnout indeed happens in an ongoing psychological upheaval.10 Job burnout can decrease the quality of services done by the staff. Individuals should be trained how to deal with stress so that they can function normally. Work and occupational activities are important factors affecting the mental health. Work enable an individual to achieve independence and enhance his self-esteem.11 Improving the quality of work life can significantly increase the employee’s satisfaction. An organization needs to work hard to provide its employees with more opportunities so that they can participate in the overall organizational effectiveness to finally improve their quality of work life. Hence, any efficient organization seeks some strategies to reinforce its employees to employ their brains and intelligence, which seems to be dependent on the quality of a proper working life such as further participation and involvement of employees in the decision making process.12 The process of quality of work life involves establishing open and balanced communication channels among all members of an organization to achieve the final goal. Accordingly, they somehow participate in making the decisions with an impact on their work and workplace. Consequently, their levels of participation in the organization and job...
satisfaction will enhance, leading to reduced work-related stress. The quality of work life indeed introduces a kind of organizational culture and management style, which brings the employees a sense of ownership, autonomy, responsibility, and self-esteem. Quality of work life is one of the major origins of organizational development (OD), an integrated evolution of science and art, which is both a specialized field of social performance and a realm of scientific exploration. The scientific dimensions (OD) of working groups formation along with high levels of organization management, structural and fundamental changes in the working systems, as well as occupational enrichment programs at a manufacturing institution, all encompass various activities, including a variety of different and numerous related types. Similarly, the study (OD) provides a wide range of topics, like the effects of change, methods of organizational change, and the factors affecting success (OD). Thus, the main question is as follows: Does the stress of work environment along with burnout relate to the quality of life of managers and staff of Zabol University of Medical Sciences?

**Materials and Methods**

Performed on May 2013, this study was a descriptive-surveying-correlational research. We used Morgan table to determine the sample size. A census sampling method was used to select the managers, while the staffs were chosen by a one-stage stratified random sampling method. A stratified sampling method was also employed for gender segregation (male and female). The exact population, samples, and sampling methods distributed among the staff and managers of Zabol University of Medical Sciences to confirm their reliability.

The study statistical population included 1352 individuals, consisting of 52 male and female managers and 1300 employees working in Zabol University of Medical Sciences. The managers were selected by a census method. Also, a total of 300 male and female employees were chosen through stratified random sampling method based on the Morgan table. All employees could participate in the study; however, the exclusion criteria were heavy smoking, the use of any psychotic drug, pregnancy, and any death in the family.

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The Jagdish job Stress Questionnaire (1994) was used to assess the job stress. The burnout rate was determined by employing Volfar job burnout questionnaire (1989). In addition, Elena's quality of work life scale (1995) was applied to measure the quality of work life of employees and managers. The Job Stress Questionnaire includes 20 questions (with a scale of 1 to 5: I totally disagree, I disagree, I have no idea, I agree, I totally agree), while the job burnout questionnaire consists of 20 questions (with a scale of 1 to 5: I totally disagree, I disagree, I have no idea, I agree, I totally agree). The quality of work life questionnaire has 25 questions (with a scale of 1 to 5: Never, rarely, sometimes, often, always). Several questionnaires were distributed among professors and experts to make major changes in the questionnaire measures. According to their viewpoints, the validity of the questionnaire was verified. Moreover, parts of the questionnaires were confirmed through Cronbach's alpha (higher than 0.7).

We used descriptive and inferential statistics to analyze the data. Thus, we employed tables, frequency, mean, percent, and standard deviation to describe the data, in particular the demographic data. We also employed different statistical methods to analyze the inferential data as follows: One sample T-test (to determine the status of variables) and the Pearson correlation coefficient and regression (for interpret the relations of variables). We analyzed the data by SPSS 16 software. In addition, the LISREL 8.7 software and the path analysis model were utilized to analyze the effectiveness of each of the variables and determine their direct or indirect relationships. Goodness of Fit Index assessed the relative value of variances and covariance by the model. The GFI varies between zero and one. The GFI value has to be equal to or greater than 0.09. Another Adjusted Goodness of Fit Index (AGFI) or the adjusted amount of the GFI index for degrees of freedom is equivalent to the use of the mean squares rather than the sum of faces and denominators (GFI-1). Its value also varies from zero to one. RMSEA indicator is the index that is defined as the root of the mean squared approximation. The RMSEA for good models is equal to 0.05 or less. The models with a RMSEA of 0.1 have a poor fit. Chi square test examines the model in agreement with the pattern of the interconnection between the observed variables, which quantity strongly depends on the sample size. And finally, The NFI index is acceptable for high values of 0.09, which represents as a sign of the fitness of the
model. This index evaluates the magnitude of the improvement through comparing a so-called independent model where no relation is found between the variables and the suggested model. The CFI index is meaningful, such as the NFI, except that it penalizes the size of the sample group (table 4).

**Results**

In this study, the sample included 53.5% (N=189) women and 46.5% (N=164) men with a mean age of 32±3 years. The Pearson correlation of coefficient determined the correlation between different variables among the employees, managers, and the staff. The results are given in tables (2), (3), (4), and (5). Due to the significant positive correlation between job stress and job burnout among the employees (r=0.31, P<0.01), the increased job stress would lead to enhanced job burnout. We obtained identical results regarding the managers (r=0.22, P<0.05) and staff (r=0.25, P<0.01). (Table 2)

**Table 2. Workplace stress and job burnout of manager and staffs**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Managers and staffs</th>
<th>Managers</th>
<th>Staffs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>Correlation</td>
<td>0.31</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>P.V</td>
<td>0.00</td>
<td>0.03</td>
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<td>Size</td>
<td>352</td>
<td>52</td>
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The reduction in the rate of job stress increases the impact on the quality of work life among the employees due to the significant negative correlation (r=−0.69, P<0.01). We obtained identical results regarding the managers (r=−0.62, P<0.01). (Table 3)

**Table 3. Workplace stress and quality of work life for managers and staffs**

<table>
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<td>P.V</td>
<td>0.00</td>
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A reduction in the job burnout and stress led to increased effect on the working life quality among the employees as a result of a significant negative correlation (r=−0.39, P<0.01). We obtained identical results regarding the managers (r=−0.34, P<0.01) and staff (r=−0.16, P<0.05). (Table 4)

**Table 4. Job Burnout and quality of work life for managers and staffs**

<table>
<thead>
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<th>Managers and staffs</th>
<th>Managers</th>
<th>Staffs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job burnout</td>
<td>Correlation</td>
<td>−0.39</td>
<td>−0.34</td>
</tr>
<tr>
<td></td>
<td>P.V</td>
<td>0.00</td>
<td>0.00</td>
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<td></td>
<td>Size</td>
<td>352</td>
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In table (5), we see the effect of job burnout as a mediatory variable for job stress and working life quality. Also, figure (1) represents the standard coefficients of the model. As the impact value of job stress on the working life quality and job burnout is -0.68 and 0.39, respectively, while the effect value of job burnout on the working life quality is equal to -0.21, the job burnout cannot act as a mediator variable for the relationship between job stress and working life quality. (Figure 1)

The t-value coefficient in the structural equation model verified the relationship between the variables (if it is greater than 2) or rejected the relationship (if it is smaller than 2). This value for the correlation between job stress and working life quality was equal to -9.16, while it was 4.44 and -3.37 for relationship between job stress and job burnout and between job burnout and working life quality, respectively. The t-value coefficients are higher than 2 for all the variables in the model, indicating the correlation between variables as seen in figure 2.

The overall model in figure 3 showed the mediator variable (workplace stress) for the relationship between job burnout and working life quality as well as the fit of the model. Based on this model, job stress is the mediator variable for the correlation found between job burnout and working life quality. Figure (3) shows the standard coefficient of the relationships between variables in the model.

Job burnout imposes a significant negative impact on the working life quality (-0.21, P<0.01) a positive direct significant effect on the job stress (0.4, P<0.05). Job stress negatively and directly affects the working life quality significantly (-0.68, P<0.01). The indirect effect of job burnout on the quality of work life is more highlighted that the job stress as a mediator variable for their correlation. (Figure 3)Figure 4 shows the t-value coefficients of the correlations. As seen in figure (4), the coefficients for all relationships are higher than 2. This, the variables are correlated with each other in this model. The t-value coefficient of the relationship between job burnout and working life quality equals to -4.03; it was calculated as 5.31 and for the correlation between job stress and job burnout and the relationship between job stress and working life quality, respectively.

We conducted an independent sample t-test to compare the mean values of job stress, job burnout, and the working life quality between males and females in all samples. The results are given in table (6). According to the results, women have more job stress than men. This phenomenon was statistically significant (P<0.05, df=350, t=2.03).

Women also showed more job burnout than the men, which was not statistically significant (P>0.05, df=350, t=0.57). (table 6). Men represented a higher quality of working life than women, which was not statistically significant (P>0.05, df=350, t=1.61).

An independent sample t-test was done to compare the mean values of job stress, job burnout, and the working life quality between male and female managers. The results are shown in table (7). Female managers had higher rates of job stress than male managers, but it was not statistically significant (P>0.05, df=50, t=0.53). The rate of job burnout was higher in female managers compared to the male managers, which was not statistically significant either (P>0.05, df=50, t=0.11).
Figure 1. Standard coefficient of the mediatory role of job burnout in the relationship between workplace stress and quality of working life.

Figure 2. t-values coefficients of the mediatory role of burnout in the relationship between workplace stress and quality of work life.
Figure 3. Standard coefficient of the model of mediating role of work environment stress in the relationship between job burnout and quality of working life.

Figure 4. t-value coefficients of the mediating role of work environment stress in the relationship between job burnout and quality of work life.
Female managers showed a higher quality of working life than the male managers; this phenomenon was not statistically significant (P>0.05, df=50, t=0.28).

Although the male staff had more job burnout than the female staff, the phenomenon was not statistically significant (P>0.05, df=298, t=1.15) (table 8).

Discussion

This was aimed at examining the relationship between workplace stress and burnout with the quality of work life. The research results indicated a negative and significant relationship between workplace stress and burnout with the quality of working life. According to the findings, a positive and significant relationship is seen between the workplace stress and job burnout. No mediatory role of job burnout was found in the relationship between job stress and the quality of work life, but, we found a mediatory role for stress in the correlation between burnout and the quality of work life, which was significant and confirmed. According to the results, no significant differences appeared between the workplace stress, job burnout, and the quality of work life among managers and male and female employees. Hence, one can conclude that there are different forms of stress and pressure on all people working in different occupations. The factors affect someone individually and cause disturbances, worries or anxieties may include occupational changes such as organizational changes, transfers, promotions, salary changes, wages, occupational punishments, and social changes. The Physical burnout and tensions affect the human body are different and not so clear, which have adverse effects on the organizationally trained human resources. It seems that the organizations need to improve the tolerance of their employees to neutralize the influence of different factors and avoid lower tensions.

Enhancing the employees' ability to cope with occupational and organizational stresses can save time, power, and the capability of the staff, which finally increase the individual productivity.

MarvianHosseini and LariDasht Beyaz3 studied the relationship between stress and job burnout. The present study aimed to cover this aspect of audit knowledge to examine the effects of job stress on the performance of auditors considering the mediating effect of job burnout. This was a descriptive-correlational study. The statistical population included all auditors working in the audit institutions in the country, including the Audit Organization in 2014. The sample included 213 selected views of this community. The results suggested a relationship between job stress, job burnout, and job performance. Bahramiet et al.17 assessed the level of job stress and its correlation with the job burnout among locomotive
drivers. Their study was a cross-sectional descriptive-analytic one, which was done on 67 locomotive drivers of Railroad Company in 2017. They used the British HSE standard questionnaire and job burnout scale to evaluate the level of occupational stress. The participation in the study was optional. The self-reported information was collected. According to them, job stress appeared to have a negative effect on the burnout of locomotive drivers. Due to the nature of this stressful occupation, it was suggested to the organization to identify the relevant stressors and design proper interventions to minimize the occupational stress and subsequent job burnout.

Kavehet et al.12 studied the relationship between job quality and job burnout and the human resources productivity in a case study of Golestan Province in an Educational Organization. The study statistical population included 250 employees in Golestan province educational organization. The sample size was 152 subjects, which were selected based on Kerjesi and Morgan table. The findings indicated a significant relationship between job quality and job burnout. In addition, a significant relationship was found between the quality of work life and human resources productivity.

A research performed by Khamisset al.18 on the effect of personal stress and work environment on job burnout, job satisfaction, and general health of hospital nurses in South Africa included 1,200 nurses randomly selected to participate in the study. Of which, 895 agreed to complete the questionnaires within 3 weeks. According to the results, personal stress and work environment had a significant relationship with job burnout and general health as well as with the job satisfaction. Da Costa and Pinto19 published a paper entitled as "Stress, Burnout, and Coping in Health Care Professionals." The article reviewed databases such as Pab Fashion, books, and articles in Portuguese, English and Spanish. The research findings proved that stress has an inverse relationship with burnout and coping in the health professions.

The results of this study seem to be consistent with the studies by Kavehet et al.12, Abbasi and Anabestani20 as well as the ideas of Hassanzadeh’s7 suggesting that job stress can lead to burnout and the resulting disadvantages such as resignation, recurrent absence, lowered energy and income, and the reduced quality of working life. Put it differently, stress is highly related to the quality of work life. Hence, the quality of life is expected to increase by decreasing occupational stress. The research findings imply the presence of a significant negative relationship between workplace stress and burnout with the quality of work life of managers and staff of Zabol University of Medical Sciences. This suggests that decreasing the occupational stress and burnout will improve the quality of work life. Thus, we recommend the officials of the Ministry of the Environment male efforts to reduce the rate of work stress by targeted participating them in the process of decision-making, their empowerment, helping them gain experience at work, and training them to enrich the occupation (trying to feel more empathy, succession included in the job). Those managers able to identify and understand the obstacles more efficiently will succeed in overcome the problems in their jobs. Proper planning, understanding the dimensions of work, enjoying the work, time-out rest, physical activity, appropriate diet and healthy food can be used as means to fight the job stress. Some other measures can include the followings:

- Organizing regular meetings for staff and encouraging them to express their problems and difficulties in the work environment
- Resolving the discussed problems
- Performing further studies on the causes of occupational stress followed by providing applied solutions to reduce the stressors
- Increasing the awareness and compatibility levels of personnel exposed to stressful occupational factors
- The establishment of mental health counseling centers in the workplace
- Enhancing the level of awareness of employers and managers in the field by more proper planning and reducing the stress in the workplace.

It is also suggested to reduce the burnout of officials of the Ministry of Environment to achieve the following objectives: Providing opportunities to familiarize them with the goals of the organization and help them to understand these goals, Establishing healthy communication networks in the organization and bilateral communication in all the organization levels, Enabling the managers to focus on the affairs and welfare of the employees, Full utilization of individuals in performing their duties, Clarifying the role of everyone in the organization and what they are expected to do, Increasing the individuals satisfaction with the organization or their job, Providing facilities and opportunities required for the growth and promotion of individuals in the organization, Transferring the responsibilities, Making a balance between the salaries and benefits with the workload of staff, Improving the capability to assess the performance of individuals based on criteria other than relations, Providing appropriate and effective training for managers and staff, Employing scientific research methodologies, Selecting the best individuals to transfer organizational resources to qualified people, Full familiarity with job tasks.

Acknowledgement

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Conflict of Interest

The authors declared that they have no conflict of interest.

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