Abstract

This study surveys the impact of training stress confrontation skills on job satisfaction of employees who work in health- safety- environment (HSE) unit in Sarcheshmeh copper industry incorporation. The method used here is semi-experimental pre-test and post-test type with the two groups of control and test. The population includes 92 Sarcheshmeh copper incorporation staff and as a result, using Cochran formula, 40 people were selected through simple random method to form the sample, 20 for the control group and 20 for the test group. Data measurement tool used here was Dunnet’s job satisfaction questionnaire. The results show that the independent variable (training of stress confrontation skills) is meaningfully different from the dependent variable (job satisfaction) in test and control groups. Based on this and the calculations made, training stress confrontation skills has had 9% impact on job satisfaction. So it can be inferred that training stress confrontation skills influences job satisfaction of employees who work in health- safety-environment (HSE) unit in Sarcheshmeh copper industry incorporation.

Key words: stress confrontation skills training (stress inoculation training), job satisfaction, Sarcheshmeh copper industry incorporation

1. Introduction

Occupation is one of the fundamental issues of the present day society. With the current circumstances and the growing number of job seeking human force, increasing job opportunities and efficiency and quality of the working staff are among the major goals of economic-social policy makers. Job consultation can help with these criteria for they help individuals know themselves better, be aware of the society needs and different jobs, their qualification criteria and get more empowered in job related chores (Ardahe and Ebrahimian, 2004). The role of human force as a part of system input which is not symphonic with other system inputs and cannot be manipulated or omitted easily is of a lot of importance. Organizations have an aspect in common considering their activities’ diversity and task expansion; that is they are born according to social, economic and service needs of humans, driven by them and finally their products are consumed by them. The common item here is “human”. Hence the high role and value of human resources in present processes of organizations cannot be ignored (Mohammadi, 2004).
Stress or mental pressure is one of the most general obsessions that modern human being is dealing with regularly. Stress is a complicated expression (Kassel, quoting Z. Kar, 2005) and despite its frequent use, it hasn’t been comprehensively defined (Brannon & Feist, quoting Z. Kar, 2005). As Dobson mentions, different authors have presented almost 300 definitions for stress (Kar, 2005). Gatchel et al (1989) defines stress as a process in which environmental occurrences threaten or challenge organic welfare and peace and likewise the organism reacts to this threat (Kar, 2005). He also calls those occurrences that cause stress as “stressful”.

stress inoculation training is a therapeutic approach that is presented by Maykon Bamm. This approach gives stress an interactive identity and tries to expose references to three levels of essential trainings in order to decrease and cure stress and related problems. The three procedures are:

1. Conceptualizing
2. Inception
3. Application and follow (Maykon Bamm, 1997)
Job satisfaction is a scale and measure to specify whether individuals like their jobs and job discontent is the measure that shows individuals don’t like their jobs (Specter, quoting Z. Kar, 2005).
Many researches don’t accuse stress to be the origin of the malady itself and on the other hand have highlighted stress confrontation methods instead (Hussang, 2003, Bryant et al, 2000) and various researches have raised two stress confrontation methods with the first one being more efficient:
1. Problem-oriented approaches
2. Excite-oriented and avoidance approaches
In all industrial factories, health- safety- environment (HSE) unit is considered one of the most dangerous and stressful units. Most personnel are constantly in standby status to confront the possible dangers caused by accidents such as burning, fire, explosion and other accidents including drowning, falling and so forth. In general the rescue operation is upon HSE staff and bearing in mind the dangers they have to face, it is vital to consider arrangements that decrease job stress and increase job satisfaction.
On the other hand, mental pressure acts as a bilateral factor that can be useful and effective from one side and harmful and destructive from the other. As a result plummeting the negative side effects and results of mental pressure can set the ground for the emergence and outbreak of capabilities, innovation, creativity, persistence, and seriousness of any organization’s human force since a peaceful and calm mind can do its tasks and play its roles with more pleasure and as a result align its capabilities with organization’s goals.
This research is carried out in line with previous works to test the effect of stress confrontation methods on job satisfaction in health- safety- environment (HSE) unit.

2. Thesis hypothesis
Stress confrontation skills training causes the increase of job satisfaction in Sarcheshmeh copper industry incorporation staff in 2013.

3. Literature review

3.1. Similar studies in Iran
Findings of Raeisi And Zahiri (1998) show that stress causes managers’ demoralization in work place, demotivation and lack of concentration for making decisions. Job factors are among the most important stressful factors.
Stress and harmful psychological stimulus can lead to sodium excretion increase and also cause cardiovascular disorders (Jafari, 1999) and immune system failure (Ganji, 2000).
Kar (2005) reports that stress inoculation training causes the decrease of job dissatisfaction of staff in Iran Khodro company.
As Kanani (2006) reports, group consultation with Fordyce approach is effective on increasing teachers’ job satisfaction in junior high schools.

3.2. Similar studies out of Iran
One of the results concluded from a study by Dorali et al (1980) on 340 nurses about the scales of job stress sources, accessible support from managers, strategies applied to confront job stress, anxiety, depression and job satisfaction levels reports that absence of managerial supports and stress confrontation strategies associates with negative traits and low levels of job satisfaction.
Research by Prinsket (1989) show that managers who need to know the stress cause or extend their strategies of stress confrontation have less job satisfaction than the managers without this need.
Finding of Cole (1992) offer the direct impact of mental pressure on job compatibility, job satisfaction and also its indirect impact on job burnout modified by stress confrontation source.
4. Methodology

This study is a test study in which after executing the pretest, the independent variable (stress confrontation skills training) was applied on test group and the results were analyzed after examining both the test groups.

\[
R_E \quad T_1 \quad X \quad T_2 \\
R_C \quad T_1 \quad \cdots \quad T_2
\]

The population of this study consists of the working staff in HSE unit of Sarcheshmeh copper incorporation in 2013 which based on collected data from this factory they were totally 92 people. As it was mentioned the population of total sample volume is 92 and using Cochran standard formula of sample volume 40 people were selected as it is shown below:

\[
n = \frac{pqNt^2}{Nd^2 + Pqt} = \frac{(92*1.96)^2*0.5*0.5}{(92*0.05)^2 + (1.96)^2*0.5*0.5} = 39.8
\]

To select the sample the random sampling method was used. Accordingly bearing in mind that the study is experimental, the 40 selected people as the sample were divided into two groups of 20; one test and one control group.

5. Study measurement tools

Dunnet’s job satisfaction questionnaire
This questionnaire has been standardized based on Herzberg's two-factor theory (Robinson, 1969).

6. Calculating the final coefficients of tools

The job satisfaction questionnaire by Dunnet et al (1996) has been standardized based on Herzberg's two-factor theory (Robinson, 1969). This questionnaire was translated from English to Persian and edited by Majdzadeh in 1994 and then Standardized in Iran by Fathabadi in 1999 and after calculating each and every question’s variance and the variance of every sample individuals through Cronbach's alpha formula the reliability coefficient obtained was 94 (Amini, 2006).

This questionnaire’s validity was approved by thesis and consulting advisors. Amini (2006) reports this validity in an MA thesis under the title of effectiveness of job consultation through Davis’s job compatibility approach on increasing job satisfaction of the staff.

7. Data analysis

In this study, after data collection and questionnaire export, the data were analyzed by SPSS software. Statistical covariance test was used to test the hypothesis. It is necessary to mention that preceding hypothesis test, in this study Levine test was used measure variance parity and the Kolmogroph Smirnov test for testing the presupposition of normal statistical population.

8. Research findings
Table 1: studied staff frequency distribution based on pre-test and posttest job satisfaction average divided by control and test group

<table>
<thead>
<tr>
<th></th>
<th>Control group</th>
<th>Test group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Posttest</td>
</tr>
<tr>
<td>average</td>
<td>192.9</td>
<td>193.3</td>
</tr>
<tr>
<td>variance</td>
<td>116.2</td>
<td>121.4</td>
</tr>
<tr>
<td>St. deviation</td>
<td>10.78</td>
<td>11.02</td>
</tr>
<tr>
<td>frequency</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

As shown in table 1, the average of job satisfaction in test group in pre-test equals 191.2 and this average in control group equals 192.9. Whereas in posttest, job satisfaction average in test group is 208.4 and in control group it is 193.3. These results are illustrated in Graph 1 as well.

Hypothesis: Stress confrontation skills training causes the increase of job satisfaction in Sarcheshmeh copper industry incorporation staff.

As a result it can be inferred that mental pressure confrontation skills training has a meaningful influence on increasing job satisfaction of Sarcheshmeh copper incorporation staff in test group which in the present study the effect (explanation percentage) is the considerable amount of 0.75. Statistical test power with significance level of 0.05 is 7.45 that show high precision of the test.

Table 2. Results of covariance analysis of Stress confrontation skills training influence on the increase of job satisfaction in Sarcheshmeh copper industry incorporation staff in both groups in posttest.

<table>
<thead>
<tr>
<th></th>
<th>Freedom degree</th>
<th>Mean square</th>
<th>F coefficient</th>
<th>P Significance level</th>
<th>Effects</th>
<th>test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test group</td>
<td>1</td>
<td>190562.7</td>
<td>746.23</td>
<td>0.000</td>
<td>0.75</td>
<td>7.456</td>
</tr>
<tr>
<td>error</td>
<td>37</td>
<td>425.11</td>
<td>7.456</td>
<td>0.01</td>
<td>0.75</td>
<td>7.456</td>
</tr>
<tr>
<td>total</td>
<td>40</td>
<td>21385.84</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Table 2. shows that there is a significant difference between modified average scores of job satisfaction level in control and test levels (p<0.05). As a result it can be inferred that mental pressure confrontation skills training has had an impact on job satisfaction of Sarcheshmeh copper incorporation staff in test group.

9. Discussion

Hypothesis: Stress confrontation skills training causes the increase of job satisfaction in Sarcheshmeh copper industry incorporation staff.

Data resulting from posttest scores covariance analysis in both the groups of test and control show that there is a significant difference between modified average of job satisfaction scores in test and control groups. So it can be inferred that training stress confrontation skills has had an impact on job satisfaction of Sarcheshmeh copper industry incorporation staff in test group.

The results derived by this hypothesis are aligned with those found by Kar (2005) which offers that stress inoculation training causes the decrease of job dissatisfaction of staff in Iran Khodro Company. It also is in line with results taken by Raeisi and Zahiri (1998) which show that stress causes managers’ demoralization in work place, their dissatisfaction and low quality work and the results by Kanani (2006) who reports, group consultation with Fordyce approach is effective on increasing teachers’ job satisfaction in junior high schools. Additionally the results of this study are aligning with those of research by Dorali et al (1980) which concluded that using job stress confrontation skills associates with negative traits and low levels of job satisfaction. The results of this study have no discrimination with the ones by Lee Beck (1985) who in an experimental study showed that attending a training course in stress confrontation strategies has a significant difference with job satisfaction in test group and also with the results of a study by Prinsket (1989) who proves that managers who...
need to know the stress cause or extend their strategies of stress confrontation have less job satisfaction than the managers without this need. Conclusions made by Roze (1992) who reports that mental pressure type and controlling pressurizing factor, behavioral models of confronting mental pressure and efficiency of confronting both and their interaction associate with job satisfaction, organizational partnership and tendency to leave job; and results by Marck (1998) who reported stress inoculation training is more effective than peer support and in follow up studies found out that stress inoculation training has a positive influence on decreasing mental pressure caused by occupational tasks and increasing job satisfaction are aligned with the findings of this research.

References