



# Effectiveness of Acceptance and Commitment-Based Stress Management Training on Occupational Stress and Emotional Exhaustion

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## Abstract

**Background and Objective:** In order to have an occupational life with high quality and free from detrimental stress, organizations are required to provide more opportunities for their staff to influence their work and cooperate in general organizational effectiveness. This study aimed to determine the effectiveness of acceptance and commitment-based stress management training in staff occupational stress and emotional exhaustion.

**Materials and Methods:** This study was conducted with a pretest-posttest control group design. The statistical population in this study included all of the employees (n=1,300) of the South Zagros Railway Administration in Andimeshk, Iran, in 2018, and the sample included 60 staff selected by simple random sampling and randomly assigned to control and experimental groups. Data collection instruments were Job Stress Scale and Job Burnout Inventory. Multivariate analysis of covariance was used to analyze the data using SPSS software (version 22).

**Results:** The results of covariance analysis showed that there was a significant difference in terms of occupational stress ( $F=17.35$ ;  $P<0.001$ ;  $\eta^2=0.24$ ) and emotional exhaustion ( $F=6.93$ ;  $P=0.011$ ;  $\eta^2=0.11$ ) between the experimental and control groups.

**Conclusion:** It can be concluded that acceptance and commitment-based stress management training influenced staff occupational stress and emotional exhaustion. Concerning the prime importance of the variables in the present study (i.e., occupational stress and emotional exhaustion), the managers and leaders of governmental and nongovernmental organizations should take into account the implementation of training intervention of this research protocol regarding the career, organizational, and personal success of staffs.

**Keywords:** Burnout, Emotions, Occupational stress

## Background

In order to have an occupational life with high quality and free from detrimental stress, organizations are required to provide more opportunities for their staff to influence their work and cooperate in general organizational effectiveness [1]. In other words, the optimum application of human resources depends on a chain of positive and constructive activities resulting in the complete or incomplete satisfaction of staff; otherwise, not only their efficiency will not increase but also the quality of the organization may reduce [2]. The reason is that one's psyche is directly influenced by his/her physical condition and his/her body, and the function of body parts are mutually affected by their conditions. Because most personnel in the workplace are faced with different tasks, long working hours, excessive workloads, lack of occupational security, high levels of workplace noise, occupational hazards and possibility of injury,

relationships with superiors and subordinates, and different occupational behaviors, they are likely to suffer from occupational stress, job burnout, and emotional exhaustion [3].

On the other hand, occupational stress is also an irritating emotional reaction occurring when there is a lack of congruity between occupational demands and requirements with staff's talents, resources, or needs [4]. Depression is also associated with low mood, loss of emotion, meaninglessness, mental slowness, feeling of guilt, and thoughts about dying in such a way that one cannot perform the normal tasks of his/her daily life [4]. Emotional exhaustion also refers to the diminution of emotional resources or depletion of spiritual strength [5], and it is attributed to many possible factors, such as work overload, role conflict, unrealistic personal expectations, and excessive interpersonal interactions [6].

Among the three components of burnout, emotional exhaustion appears to be the most critical. It has often been positioned to emerge first in the development of burnout, in turn leading to higher levels of depersonalization and reduced feelings of personal accomplishment [7]. Further substantiating the central role of emotional exhaustion among the three components of burnout, emotional exhaustion has been identified to present the most consistent relations with outcomes out of all burnout components [8]. In particular, emotional exhaustion appears to be the burnout component that best predicts (in terms of explaining the highest variance) a decrease in the quality of work performance [9].

Multiple studies have shown the effectiveness of acceptance and commitment-based therapy. Leoni et al. [7] demonstrated that acceptance and commitment-based therapy leads to a reduction in stress levels and an increase in the level of general health. Brinkborg et al. [8] indicated that the stress level of teachers receiving stress management training was lower than that of the control group regarding some components. O'Brien et al. [9] showed that acceptance and commitment-based group training results in the reduction of occupational stress. In several studies, Butts et al. [10], Wardley et al. [11], and Reeve et al. [12] have demonstrated that acceptance and commitment-based stress management training reduces emotional exhaustion.

The reason for performing this study was that behavioral experts and psychologists are trying to decrease the various psychological pressures of staff in different areas. In this regard, based on the results of previous studies, psychological interventions are effective in decreasing many mental pressures.

### Objectives

Regarding the effects of current psychological interventions, the present study examined the effect of acceptance and commitment-based stress management training on the occupational stress and emotional exhaustion of staff.

### Materials and Methods

This study was carried out with a semi-experimental pretest-posttest design and a control group. The statistical population included all of the staff of the South Zagros Railway Administration in Andimeshk, Iran, in 2018. The sample of the study, including 60 individuals willing to participate in this study with higher scores in the occupational stress questionnaire (at least one standard deviation from the mean), were randomly classified into two

control and experimental groups. The inclusion criteria were the age range of 25-60 years (to consider individuals with different occupational history), no history of psychological illness, no participation in other therapeutic programs in a concurrent manner, informed consent to participate in the study, occupational experience of 5 years, and academic degrees or a diploma.

### Job Stress Scale

This questionnaire was developed by Parker and Decotiis (1983) and includes 13 items rated based on a 5-point scale from "strongly disagree" to "strongly agree." In this questionnaire, occupational stress has two dimensions, namely feelings of being under substantial time pressure and occupation-related feeling of anxiety. The items 1 to 8 are related to the first dimension, and the items 9 to 13 are associated with anxiety. Considering the validity and reliability of this instrument, Parker and Decotiis using Cronbach's alpha reported the reliability coefficients of 0.86 and 0.74 for the subscales of time pressure and occupation-related feeling of anxiety, respectively [13]. In Iran, the reliability of this instrument regarding the subscales of time pressure, occupation-related feeling of anxiety, and total scale are reported as, 0.76, 0.79, and 0.86, respectively [14]. The reliability coefficients of this questionnaire in the present study were calculated as 0.71 and 0.86 for the pretest and posttest, respectively.

### Job Burnout Inventory

This 22-item questionnaire was developed by Maslach (1981) measuring three dimensions of occupational burnout (i.e., emotional exhaustion, depersonalization phenomena, and lack of personal accomplishment in terms of occupational activity). The subscale of emotional exhaustion was used in this study. The scoring of items in this questionnaire was based on a 7-point Likert scale, including never, very little, little, moderate, moderate-high, much, and very much. Maslach and Jackson [15] reported a Cronbach's alpha of 0.9 for the subscale of emotional exhaustion regarding its reliability. Abarghouei et al. [16] also reported a reliability coefficient of 0.72 for this subscale. In the present study, the reliability coefficients of this subscale were calculated at 0.88 and 0.90 for the pretest and posttest, respectively.

At the beginning and end of the intervention sessions, pretest and posttest were conducted in both of the groups. The participants in the experimental group received acceptance and commitment-based training of stress management for three 4-hour sessions. At the end of the training,

**Table 1.** Content summary of training sessions

Session	Content of session	Key concepts
First	Providing an overview of training program; introducing mindfulness; becoming familiar with values-based action; discussing homework practices	Practicing mindfulness and getting familiar with values; practicing eating raisins; short-term body and breathing mindfulness; two paper sheet technique; distribution of homework practice sheets; environmental reminders
Second	Starting practice of consciousness; getting rid of intellectual barriers to values-based action; defining values and goals based on values and action planning; discussing homework	Mindfulness of breathing; paying attention to thoughts and emotions and letting thoughts to come to mind and go; discussing metaphor of passengers on the bus; physical exercise; home worksheet with environmental reminders
Third	Reviewing homework practice; valuing homology evaluation; mindfulness of thoughts and feelings; practicing goal planning and value-based action	Double and group discussion; looking at taken actions; practicing thoughts on the clouds; practicing physics and values-based action plan

they participated in the posttest (Table 1). Mean values were used to describe the data. Considering the pretest and posttest design, multivariate analysis of covariance (MANCOVA) was utilized to analyze the data by SPSS software (version 22).

**Results**

The mean values of participants' age in the experimental and control groups were 36.7±13.5 and 37.3±13.2 years, respectively (Table 2). All the MANCOVA assumptions, such as the homogeneity of variances, homogeneity of regression coefficients, and normal distribution of the sample, were met. Regarding the presence of the assumptions of MANCOVA, the use of this test will be granted. The results of MANCOVA and Wilkes' Lambda significance test ( $f=28.75$ ;  $P>0.001$ ) showed that concerning Eta squared, the effect size of acceptance and commitment-based stress

management training was 0.69 indicating that 69% of the variance of the posttest scores was related to group membership. In addition, by controlling pretest volume, the significant levels of the Wilks' Lambda indicated that there was a significant difference at least in one of the dependent variables (i.e., occupational stress and emotional exhaustion) between the experimental and control groups. The covariance analysis test in the MANCOVA context was used to determine which variable was significant, which is presented in Table 3. According to Table 4, stress management training based on acceptance and commitment was effective in occupational stress and emotional exhaustion in the posttest ( $P<0.05$ ). Moreover, the range of significant effect size indicated that 11-24% of the changes in the dependent variables were due to the effect of an independent variable (i.e., acceptance and commitment-based stress management training).

**Table 2.** Demographic variables in two groups

Variable	Group	Range	n	%
Age (year)	Experimental	25-35	9	30
		35-45	10	33.3
		45-55	6	20
		55-60	5	16.7
	Control	25-35	10	33.3
		35-45	10	33.3
Educational level	Experimental	45-55	8	26.7
		55-60	6	20
		Diploma	7	23.3
	Control	Associate degree	6	20
		Bachelor's degree	9	30
		Postgraduate	8	26.7
		Diploma	5	16.7
		Associate degree	7	23.3
		Bachelor's degree	9	30
Postgraduate	9	30		

**Table 3.** Descriptive findings of study variables

Variable	Statistics	Experimental group		Control group	
		Pretest	Posttest	Pretest	Posttest
Occupational stress	Mean	45.03	37.00	44.67	42.50
	SD	6.01	6.10	4.44	5.98
Emotional exhaustion	Mean	34.57	27.60	33.33	29.73
	SD	55.29	4.16	5.03	5.67

SD: Standard deviation

**Table 4.** Results of covariance analysis regarding mean of posttest anxiety and depression

Dependent variable	Mean of squares	Degree of freedom	F	Level of Sig.	Effect size
Occupational stress	379.118	1	17.356	0.001	0.243
Emotional exhaustion	109.893	1	6.930	0.011	0.114

## Discussion

The results of covariance analysis showed that there was a significant difference between the experimental group and control group in terms of occupational stress and emotional exhaustion. The first finding indicated that stress management training based on acceptance and commitment was effective in the occupational stress and emotional exhaustion of staff. These results are in line with the findings of studies carried out by Hayes et al. [17], Brinkborg et al. [18], and Moran et al. [19].

One of the main and prevalent problems in workplaces is stress or occupational pressure. These conditions of the workplace sometimes lead to negative consequences for the health of employees and workers in administrative and particularly industrial units. The most well-known issues threatening workers' health is occupational stress. Due to its underlying mechanisms, such as acceptance, awareness, presence at the moment, nonjudgmental observation, confrontation, and release, in combination with traditional cognitive behavioral therapy techniques, acceptance and commitment-based therapy can reduce psychological symptoms and increase effectiveness [20].

Nowadays, occupational stress and burnout are communal and serious problems among those who are working in human services. This phenomenon is a fundamental cause of physical and emotional illness that can lead to increased absenteeism from work, quitting work, and reduction in productivity. Those staffs who are suffering from occupational burnout are less motivated and less active in their job and mentally become indifferent, depressed, tiresome, and irritable [21].

Generally, occupational burnout increases with the experience of negative affective emotions. Occupational burnout is described as physical and emotional exhaustion as well as negative attitudes, leading to severe problems in occupational interactions with individuals. It seems reasonable to infer that participants attending meetings use their typical responses as secret emotional triggers (i.e., antecedent focused strategies) and learn how to quickly get rid of stressful exposures. They gain more awareness of new mindfulness techniques, such as tagging and reflection (i.e., a response-focused strategy) [22]. The employment of these types of emotion regulation strategies focused on antecedents and responses may be the basic mechanism for elucidating the effectiveness of

mindfulness in reducing stress and improving mental well-being and psychological balance.

Training allows an individual to be more receptive to others, accept others without any prejudice and negative judgment, and encourage others to be kinder and more sensitive to the needs of others. Mindfulness by increasing individuals' capacity for self-awareness, empathic concerns, and emotional regulation provides steps to increase individuals' communication capacity. Situational factors and working conditions are also stressful and can lead to personalized stress and disruption in the performance of an organization [23]. This kind of training, through raising awareness in individuals and enhancing motivations of staff, causes a pleasant feeling of doing the job in staff. It alters nervous pressure in staff, ultimately leading to the reduction of stress and improvement of duties in staff.

The importance of stress management and its consideration in organizations has been assumed, and awareness leads to the improvement of staff performance in organizations. In the past few years, one of the disturbing and effectual factors considering the process of individuals' careers is emotional exhaustion. It is one of the components of exhaustion in which an individual due to the loss of his/her emotional strength cannot emotionally communicate with others. It means that due to the loss of personal characteristics and through negative attitudes the individual embarks on nonemotional and violent responses to others.

Theorists believe emotional exhaustion is the triggering factor for job burnout [24]. Personnel who are afflicted with emotional exhaustion cannot satisfy their job demands. Therefore, they lose their enthusiasm to do the job in a good manner and deal with customers. It seems that emotional exhaustion is a kind of reaction to stressful interpersonal factors in the workplace where contact with bosses, supervisors, co-workers, and clients leads to alterations in their attitudes, behaviors, and relationships [25].

Emotional exhaustion results in the loss of emotional energy in a person who has lost his motivation for work and becomes tired of doing the job. Consequently, when he/she feels weak, the symptoms of emotional exhaustion appear. In other words, emotional exhaustion happens when physical reservations reduce due to the continuation of stressful occupational conditions leading to the deterioration of emotional forces and reduction of

the level of positive attitude to the occupation. As a result, doing the job has become boring, and his/her overall life satisfaction reduces.

### Conclusions

The obtained results of the present study revealed that acceptance and commitment-based stress management training influenced the occupational stress and emotional exhaustion of the staff. Due to the limitations of intergroup research methods (i.e., experimental), it is recommended to carry out future studies with single-subject experimental designs to investigate the method of acceptance and commitment therapy. Concerning the prime importance of the variables in the present study (i.e., occupational stress and emotional exhaustion), managers and leaders of governmental and nongovernmental organizations should take into account the implementation of training interventions of this study protocol regarding the career, organizational, and personal success of staffs. With regard to the effectiveness of acceptance and commitment-based stress management training as a new and effective approach in psychological and physical health, social functioning, emotions, and human resource productivity and empowerment in addition to no studies in this area, it is suggested to consider this intervention in future studies.

### Compliance with ethical guidelines

All the ethical principles were considered in the present study. The participants were informed about the purpose of the study and implementation of the stages. In addition, informed consent was obtained from all the study subjects. The participants were also assured of the confidentiality of their information. Moreover, the subjects were allowed to withdraw from the study at any time, and the results of the study would be available to them if desired.

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### Authors' contributions

Conceptualization [Jahangir Mirzavandi]; Methodology [Jahangir Mirzavandi]; Investigation [Jahangir Mirzavandi]; Writing Original Draft [Jahangir Mirzavandi]; Writing, Review, and Editing [all authors]; Funding Acquisition [all authors]; Resources [all authors]; Supervision [Jahangir Mirzavandi]

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### Conflicts of Interest

The authors declare that there is no conflict of interest.

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