

The Relation between Defense Mechanisms and Job Burnout among Iran AIR Staff

Fatemeh Sadat Sepidehdam, Yousef Karimi, and Mohamad Ali Besharat

Abstract—The present research has been carried out with purpose of the reviewing the relation between job burnout and defense mechanisms used by air staff of Islamic Republic of Iran. The main hypothesis of this research is the presence of a relation between job burnout and defense mechanisms. In order to test the above hypothesis 234 subjects (137 male and 97 female) of air staff of Islamic Republic of Iran were selected by an available sampling. The device of the research is defense method questionnaire (Andrews) and Jackson and Maslach's professional fatigue questionnaire. After collecting questionnaires, analysis was done by using descriptive statistical methods, Pearson's correlation, multivariable regression analysis and independent T test about the obtained data.

The results of this research after analyzing the data were obtained in a way that the people with grown defense mechanism have less affective burnout and it was identified that the more grown defense mechanism, the more individual success and the less individual success, the defense mechanisms are not grown. This research also shows that the defense mechanisms are not grown, they have more depersonalization.

Index Terms—Defense mechanisms, job burnout.

I. INTRODUCTION

Defense mechanisms are spontaneous regulatory processes which act in order to reduce cognitive incongruence and minimize abrupt changes in internal and external reality through affecting the perception of threatening incidents [1]–[3]. Empirical evidence has shown that defense mechanisms and styles could be arranged according to adaptability hierarchy [3]. Adapted defense mechanisms and styles are associated with the results of mental and physical health and unadapted defense mechanisms and styles are associated with many negative indices of health such as personality disorder and depression [1], [4]. Based on the hierarchial classification of defense mechanisms by Viallant, defense mechanisms are divided twenty mechanisms into three defense styles of mature, neurotic and immature [5]. Mature defense mechanisms are regarded as adaptive, normal and effective confrontation methods and neurotic and immature defense mechanisms are considered as nonadaptive and ineffective confrontation

methods.

Freud recognized personal defense style, i.e. the frequency of using various defense mechanisms in comparison with each other as the main variable for knowing personality, pathology and the level of adaptability; the hypothesis which has been widely acknowledged by research findings [6]. In regard to the research into the relation between mental pathology and defense mechanisms, studies have been carried out which are notable research of the type, One of which that would be mentioned is the first examinations of the defense styles of the people suffering from Chronic fatigue syndrome by Creswell and Calder [7]. In this research it was revealed that in comparison with the group control, the ones suffering from this syndrome use defenses at a high level of anxiety more. In addition to what was mentioned, in some studies, defense mechanisms were examined in terms of the lifestyle of people and their adaptability and compatibility in their lives, in other words the relations of defenses with the V axis were the studied diagnostic guides. For instance, Viallant's research on some college students revealed that mature defenses are correlated with better adaptability and compatibility in life [3]. In this regard, Viallant showed in a longitudinal study on the men who had been under study for 50 years that the continuation of work and successful love life were positively correlated with mature defense mechanisms and negatively correlated with immature defense mechanisms.

When somebody is subject to mental stress for a long time, he/she suffers from an illness which is known as Burnout's syndrome [8]. Burnout's syndrome could be introduced as a reaction to chronic stress and a response to job or organizational stress. It has been perceived that the staff members of service industry who spend considerable time and energy helping others become easily stricken with burnout. In today's society, job burnout has spread widely and affected all aspects of people's lives. On the one hand, it has caused an increase in addiction, divorce, quitting jobs and physical and psychophysical illnesses and on the other hand it has caused a decrease in productive labor force and harmed the economy of and production in the country [9]. Rogers and Dadson measured the burnout pertinent to 99 staff members of occupational therapy in the southwest of America by Maslach's questionnaire [10]. The results of the study represent that meaningful correlations exist between a) age and emotional burnout and being denuded of characteristics b) literacy and emotional burnout and being denuded of characteristics c) employment period and poor performance and d) being denuded of characteristics in terms of frequency. Job Burnout's syndrome is not a mental disorder but spreads gradually in time and it might transform into a mental disability. Job burnout is a psychological syndrome including

Manuscript received February 1, 2012; revised April 5, 2012.

This research was conducted on 234 people (137 men and 97 women) working for IRAN AIR who had been chosen through available sampling in autumn 2009.

Fatemeh sadat Sepidehdam and Yousef Karimi are with Humanities and Social Sciences, Science and Research Branch, Islamic Azad University, Iran.(e-mail:sepidehdam.f@gmail.com. Tel. +98 21 44214040; fax. +98 21 44214040.)

Mohamad ali Besharat is with Psychology and Education, university of Tehran, Iran

emotional exhaustion, depersonalization and decreased personal efficiency [11]. Maslach suggests a concept of burnout which has three aspects: emotional exhaustion, which is the same as mental stress variable and being stressed and the loss of the emotional resources of a person. Depersonalization is a negative and cruel response to the ones who are usually the recipients of the service provided by the person and implies the negative attitude of the person towards others and is decreased sense of personal efficiency, decreased sense of merit in the fulfillment of personal duty and it is considered as a negative assessment of self in regard to performing tasks. He believes that job burnout could cause a decrease in the quality of offering services and be a reason for quitting a job, absence or being low-spirited and be associated with disorders such as physical fatigue, insomnia, alcoholism and drug addiction and family and marital problems. Since job burnout affects the quality of a person's activities, a better identification of its causes would benefit a quality increase in the provided services. Examinations of job burnout have revealed that in the same working conditions, people are not afflicted by burnout to the same degree. In other words, burnout is created through an interaction between too many factors such as intrapersonal, interpersonal and occupational factors and characteristics [12].

In recent years the phenomenon of job burnout has attracted the attention of many researchers and people in charge of human resources productivity. The exact amount of job burnout is not certain but it harms a wide range of labor force and human resources. Not only do the ones suffering from burnout have problems but also get others into trouble and endanger their mental health and efficiency. It should be mentioned that the workaholics who often work overtime or even work on holidays, are often more exposed to burnout. The ones suffering from job burnout often suffer from headache, sleep disorder, irritable temper, collapse of marriage, anxiety, depression, high blood pressure, etc. The main cause of job burnout is the tolerance to mental stress caused by the job for a long time along with heavy workload. The lack of interest in the job, the mismatch between the skills and the job, having a job for which the person does not have a talent or which is beyond their endurance and so forth drive the people into job burnout [8].

Since it seems that job burnout plays an important part in the efficiency of staff, this study is aimed at examining the relation between defense mechanisms used by staff and job burnout. Generally, this research is aimed at examining the relation between defense mechanisms and job burnout affecting IRAN AIR staff.

II. METHODS

This research was conducted on 234 people (137 men and 97 women) working for IRAN AIR who had been chosen through available sampling in autumn 2009. The research instruments for this study are the defense styles questionnaire (DSQ Andrews) and job burnout questionnaire [12]. After collecting the questionnaires, the analysis of the data was conducted by using descriptive statistics methods, Pearson's correlation, multivariable regression analysis and independent t test. Measurement instruments Defense styles

questionnaire is an instrument with 40 questions which measures 20 defense mechanisms in terms of three styles: mature, neurotic and immature on the nine-graded likert scale (from totally agree to totally disagree). Cronbach's alpha coefficient has been described for the questions about each satisfactory defense style [5]. The psychometric features of Persian version of the defense styles questionnaire have been examined and acknowledged through different research on sick and normal samples ($n=423$) from 2000 to 2006 [13]-[14]. Job burnout questionnaire has been created by Maslach and Jackson. This questionnaire consists of 22 parts which measure the three aspects of job burnout (affective fatigue, individual success and depersonalization) [12]. Maslach and Jackson have calculated the internal reliability of each mini-test. The internal reliabilities were reported as follows: affective fatigue $\alpha=0.90$, depersonalization $\alpha=0.79$ and personal lack $\alpha=0.71$ [12]. Khestkaran and Mostaghaee used and acknowledged the questionnaire [15]. In Iran, Behnia calculated that the reliability of the test was between 0.55 and 0.87 and Badri Gargooree (1995) calculated that it was 0.75 to 0.84 [16]-[17].

III. RESULTS

In order to gain information about the amount and the percentage of the people in each considered variable descriptive statistics have been employed, which show that among the men the highest frequency belongs to the staff (37.2) with a high school diploma (48.9) in the 26-30 age range (32.8) and among the women the highest frequency belongs to the staff (46.4) with a bachelor's degree or who are college students in the 26-30 age range (48.5).

Among the indices of job burnout, individual success element has a higher mean ($M=3.64$) in comparison to depersonalization element ($M=1.11$) and affective fatigue ($M=1.70$) and among the indices of defense mechanisms, mature defense style element has a higher mean ($M=5.83$) in comparison to neurotic defense style element ($M=5.48$) and immature defense style element ($M=4.41$). In order to examine the relation between job burnout and defense mechanisms among IRAN AIR staff Pearson's correlation was used whose results have been shown in table I.

TABLE I: THE CORRELATION BETWEEN JOB BURNOUT INDICES AND DEFENSE MECHANISMS INDICES.

Defense mechanisms	mature		neurotic		immature	
	correlation	meaningfulness	correlation	meaningfulness	correlation	meaningfulness
Job burnout						
Affective fatigue	-0.13	0.03	-0.007	0.26	0.40	0.00
depersonalization	-0.08	0.19	0.10	0.13	0.51	0.00
Individual success	0.25	1	0.09	0.17	0.26	1

As it can be seen in table I, there is a negative and significant correlation between affective fatigue and mature defense mechanism element ($r=-0.13$ and $P<0.05$) and there is a positive and significant correlation between affective fatigue and immature defense mechanism ($r=0.40$ and $P<0.05$) which implies that the more mature mechanisms people have the less emotionally fatigued they feel and the more emotionally fatigued people are the more immature defense mechanisms they have and there is not a significant correlation between affective fatigue and neurotic defense mechanism ($r=-0.07$ and $P>0.05$) and on the other hand there are not significant correlations between depersonalization element and mature defense mechanism element ($r=-0.08$ and $P>0.05$) and neurotic defense mechanism ($r=0.10$ and $P>0.05$) but there is a positive and significant correlation between depersonalization element and immature defense mechanism element ($r=0.51$ and $P<0.05$) which shows that the more immature defense

mechanisms of people are the more depersonalized they are and also there is a positive and significant correlation between individual success and mature defense mechanism element ($r=0.25$ and $P<0.05$) and there is a negative and significant correlation between individual success and immature defense mechanism ($r=-0.26$ and $P<0.05$) which shows that the more mature the defense mechanisms of people are the more individually successful they are and the less individually successful they are the more immature defense mechanism they have and there is not a significant correlation between individual success and neurotic defense mechanism ($r=0.09$ and $P>0.05$).

In order to examine the difference between the defense mechanisms used by the ones suffering from job burnout and the ones not suffering from it, independent T test was employed whose results can be seen in table II.

TABLE II: INDEPENDENT T TEST FOR COMPARING THE DEFENSE MECHANISMS USED BY THE ONES SUFFERING FROM JOB BURNOUT AND THE ONES NOT SUFFERING FROM IT.

groups		frequency	mean	Standard deviation	t	df	significance
mature	stricken	149	5.63	1.13	3.5	21	0.001
	Non-stricken	72	6.23	1.26	9	9	
neurotic	stricken	152	5.44	1.26	1.7	22	0.08
	Non-stricken	74	5.74	1.24	1	4	
Immature	stricken	145	4.56	1.10	3.4	21	0.001
	Non-stricken	72	4.10	0.81	7	5	

As it can be seen in table II there is a significant difference between the means of mature defense mechanisms used by the ones stricken with job burnout and the ones not stricken with it ($t=3.59$ and $P<0.05$) and it could be expressed that the ones not stricken with job burnout ($M=6.23$) have significantly more mature mechanisms than the ones stricken with it ($M=5.63$). Besides, there is a significant difference between the means of immature defense styles used by the ones stricken with job burnout and the ones not stricken with it. ($t=3.47$ and $P<0.05$). In fact, the ones stricken with job burnout have significantly more immature defense styles ($M=4.56$) than the ones not stricken with it ($M=4.10$).

But there is not a significant difference between the means of neurotic defense style employed by the ones stricken with job burnout and the ones not stricken with it ($t=1.71$ and $P>0.05$), i.e. there is not a significant difference between the ones stricken with job burnout ($M=5.74$) and the ones not stricken with it ($M=5.44$) in neurotic defense style.

IV. DISCUSSION

The results show that the more mature mechanisms people have the less emotionally fatigued they feel and the more emotionally fatigued they feel the more immature mechanisms they have. There is a significant relation between the high levels of depression and the symptoms of depression, fatigue and the poor life quality.

When emotionally fatigued, the sense of empathy is reduced and it affects the social life and the life quality of the person.

Since depersonalization is particularly seen in service

industry, it could be mentioned that when the defense mechanisms employed by a person become more immature, depersonalization is seen more in these people, since the person protects himself/herself ineffectively against job stress by employing immature mechanisms. For instance, justification is one of the immature defense mechanisms which are seen in tense and irritating situations. When the person tries to make his/her behavior seem logical, he/she benefits from this mechanism; it's clear that there is a stronger possibility that such a person will treat his/her clients negatively and be stricken with burnout.

Besharat mentions in his research that positive perfectionism is based on positiveness and recognizing achievements, and equips the person to achieve targets and produce positive consequences (not avoidance of and escaping negative outcomes) [18].

This mechanism activates the effects of positive perfectionism instead of imposing anxiety and worries about goals and unreachable standards not coming true, and also activates the effects of positiveness and optimism about achievable aims and objectives coming true.

Along with the process, the probability of employing mature mechanisms increases and neurotic and immature defense mechanisms have a slighter chance and become less a necessity of acting. Therefore it could be said that as long as the person is positive and recognizes his/her achievements, the probability of employing mature mechanisms increases which confirms the findings.

The ones who can break down the barriers and adopt a new course of life and cope with illogical reasons which are given followed by weak social support, are the ones deriving high

satisfaction with the job and are less stricken with job burnout. Mature defenses are correlated with better adaptability and compatibility in life. The continuation of work and successful love life are positively correlated with mature defense mechanisms and are negatively correlated with immature defense mechanisms. For further explanation, refinement (a kind of mature mechanism) is one of the mechanisms constructing culture and civilization which each person moderates his/her desires on its behalf when stepping into society and along with this he/she has a sense of achievement, the same way that Pasteur's curiosity along with refinement defense mechanism helped the discovery of diphtheria vaccine. In fact his efforts were his inner feelings of refined curiosity.

Sandoual and Janatan have shown the ones who have uniform personalities are less susceptible to burnout than others [17]. Besides, Sinha and Watson made it clear that most of the personality disorders are positively correlated with immature and nonadaptive defense style and negatively correlated with adaptive and mature defense style [19]. Akerman et al have concluded in their longitudinal studies that the depressed ones being under treatment mostly employed mature and proper defense after the treatment [20]. Considering the research, it seems that when personality is uniform and the person is less depressed and anxious, he/she benefits from more mature mechanisms. Mature defense is seen among the ones who have more abilities and capabilities to outsmart stress and this can reduce the chance of being stricken with burnout and even prevent it. Some indices of immature defense styles such as denial and regress have been perceived in physically injured and mentally disturbed people. Since in job burnout psychological damage and behavior problems are clearly created, it could be inferred that in immature defense style more people stricken with burnout are seen and also immature defense style has positive and significant effect on affective fatigue variable. When a person is stricken with affective fatigue, he/she feels that his/her emotional resources have decreased and suffers from emotional weakness and in fact he/she has gone through emotional discharge. Immature defense mechanisms can drive a person into affective fatigue to a great extent since in most of the mechanisms of this defense style people resort to assimilation, projection and fantasizing; to the extent that the person feels isolated and even loses his/her identity and so forth in introjection when the borders between local imaginations and his/her imaginations are blurred. Because of this, it's obvious that emotional analysis is parallel with immature mechanisms. Job stress is related to job burnout increase and low control opposition. The ones whose level of job burnout has increased in the three aspects often benefit from emotion-centered oppositional methods such as isolation, escape and avoidance. Many researchers such as Bond and Viallant found out that neurotic defenses are the ones which are mostly used by the people suffering from more fundamental disorders [1], [21]. For instance Millon shows that there are significant correlations between anti-social characteristics and extrajection, obsessional characteristics and reaction producing, paranoid features and projection and inactive aggressive features and displacement. Mature and neurotic defense styles have significant effect

on individual success variable. Generally, it has been believed for a while that defense mechanisms intervene between various types of mental pathology. Many researchers one of whom is Viallant have found out that mental health is associated with mature defense mechanisms such as refinement, prediction, sense of humor, etc. The ones who employ acceptable mature mechanisms cope with stress very well and adaptively respond to conflict. These people will definitely be stricken with job burnout less than others. The researcher's findings acknowledge it. Confirming the researcher's findings, Wise et al showed in a pilot study that emotional disorder is positively correlated with immature defense style and negatively correlated with mature defense style and not correlated with neurotic defense style [22].

Based on the results of the study and in order to help the mental health of the staff and improve their performance and raise the productivity and reduce job burnout in organizations the suggestions are as follows:

Staff should be helped to benefit from these mechanisms in order to correct and improve their organizational behavior through periodic training. Furthermore, mental mechanisms specification tests could be used in recruitment and job interviews (according to the need of the organization and the type of job) to provide mental-occupational profile. It would be useful to set examples for staff and provide them with models of efficiency, use organizational behavior brochures and include fruitful discussions on staff's defense mechanisms correction in them.

In this research, different factors have influenced the results, such as bureaucracy and red tape which result in the researcher going through time consuming stages, previous experience of the people, temper, behavioral pattern and personality, social and economic class of the staff which relatively influence the results of the tests and also human characteristics which cause the people not to tell the truth when answering questions and the lack of cooperation coming from some working units in completing questionnaires. Narrowing statistical universe and the data by the questionnaire and organizational and geographical limitations are some of the other limitations.

ACKNOWLEDGMENT

This research was supported in air staff of Islamic Republic of Iran, faculty of Humanities and Social Sciences, Science and Research Branch, Islamic Azad University and faculty of Psychology and Education, university of Tehran, Iran.

REFERENCES

- [1] G. E. Vaillant and R. E. Drake, "Maturity of ego defense in relation to DSM-III axis personality disorders," *Archives of general Psychiatry*, 42, 597-601, 1985.
- [2] G. E. Vaillant, "Ego mechanisms of defense: A guide for clinicians and researcher," Washington DC: *American Psychiatric Press*. 158, 1992.
- [3] G. E. Vaillant, "Ego mechanism of defense and personality psychopathology," *Journal of abnormal psychology*, 103, 44-50, 1994.
- [4] P. Cramer and C. J. Jones, "Defense mechanisms predict differential lifespan change in Self-control and Self-acceptance," *Journal of Research in Personality*, volume 41, Issue 4, Pages 841-855, 2007.
- [5] G. Andrews, M. Singh, and M. Bond, "The Defense Style Questionnaire," *Journal of Nervous and Mental Disease*, 246-256, 1993.

- [6] S. Freud, Inhibitions, symptoms, and anxiety, In J. Strachey (Ed., Trans), the standard edition of the complete psychological works of Sigmund Freud, Vol.20, 1959, PP, 84-172.
- [7] S. Creswell and T. Chalder, "Defensive coping styles in chronic fatigue syndrome," *Journal of Psychosomatic Research* 51, 607-610, 2001.
- [8] M. Saatchi, *Work Psychology*, Tehran: the publishing edition, 2000.
- [9] M. Jeldkar, "Compared to depreciation and non-psychiatric nurses, psychiatric wards, medical centers, light, and rehabilitation of Farabi university," *Master of Psychology Thesis*, University Branch (Isfahan), 2000.
- [10] D. Rogers and S. Dodson, "Burnout in occupational therapists," *American Journal of Occupational Therapy*, vol 42, 787-792, 1988.
- [11] W. B. Schaufeli, C. Maslach, and T. Marek, *The future of burnout*, Professional burnout: Recent developments in theory and research, pp. 253-259, Washington, DC: Taylor and Francis, 1993.
- [12] C. Maslach and S. E. Jackson, "The measurement of experienced burnout," *Journal of Occupational Behavior*, vol 2, 99-113, 1981.
- [13] M. A. Besharat, "Evaluation of reliability, validity and factor analysis of the defense style questionnaire," *Contemporary Psychology*, 8, printed below, 2009.
- [14] M. A. Besharat, M. Sharif, and M. Iravani, "Relationship between attachment styles and defense mechanisms," *Journal of Psychology*, 5 (3 (19)):289-277, 2001.
- [15] S. Goodarzi, G. Solatee, and A. Noori. "The type of relationship between personality and burnout in executives," *Management Development*, No. 30, 40-10, 2001.
- [16] M. Behnia, "Relationship between job burnout and mental health and happiness of the moderating variable tenacity in male teachers," Department of Education and Research Council of the province, 2000.
- [17] R. Badri Gargooree. "Teacher burnout syndrome and psychological defense mechanisms," MS Thesis, Tarbiat Modarres University, to help Hashemian, Kianoush, 1995.
- [18] M. A. Besharat, "Failure, emotional and defensive styles," *Journal of Mental Health*, 10th Year, No. 3, 190-181, 2008.
- [19] B. K. Sinha and D. C. Watson, "Predicting personality disorder traits with the defense style questionnaire in a normal sample," *Journal of Personality Disorders*, 13(3), pp. 281-286, 1999.
- [20] M. Bond and J. C. Perry, "Long-term changes in defense styles with psychodynamic psychotherapy for depressive, anxiety, and personality disorders," *American Journal of Psychiatry*, 161, 1665-71, 2004.
- [21] M. Bond, "Empirical studies of defense style: relationships with psychopathology and change," *Harvard Review of Psychiatry*. 12(5), 263-278, 2004.
- [22] L. Heidarynasab, "Comparison of defense mechanisms in non-clinical and clinical samples based on normal terms and psychometric questionnaire results based on the Iranian defense styles.(DSQ)" PhD thesis. Tarbiat Modarres University, 2006.



Fatemeh sadat Sepidehdam, After variety experience on research project, industrial psychology occupations I achieved high ability to work as an individual as well as team member and obviously, I can manage and be managed to challenge academic and psychological issues. Iran air flight attendant (cabin crew) (<http://www.crew.iranair.com/>).member of psychology and counseling organization of Iran (<http://www.pcoiran.ir/>).