

## Relationship Between Mental Health and Job Satisfaction among High School Principals and Teachers in Iran

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**Abstract:** This research examined the relationship between mental health and job satisfaction among high school principals and teachers in Iran. It was hypothesized that global job satisfaction and its 5 components: Satisfaction with work, co-workers, pay, promotion and supervision have negative correlations with the 9 mental disorders: Somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism. The JDI and the SCL-90-R were used to measure overall job satisfaction and its 5 components and the 9 mental disorders, respectively. The sample consisted of 828 subjects selected by a random method; 665 were teachers and 163 were principals. Results indicated that global job satisfaction and its 5 components have negative correlations with the 9 mental disorders at  $p < 0.01$  level of significance. Only 8 correlation coefficients out of 108 did not reach statistical significance at  $p < 0.05$  level. The multiple correlation coefficients of the 5 job satisfaction facets and the nine mental disorders have a range from 0.17-0.38 for teachers and from 0.34-0.45 for principals. All these multiple correlation coefficients were significant at  $p < 0.01$ .

**Key words:** Mental health, mental disorder, job satisfaction, multiple correlation

### INTRODUCTION

Mental health is a state of mind characterized by emotional well-being, good behavioral adjustment, relative freedom from anxiety and disabling symptoms and a capacity to establish constructive relationships and cope with the ordinary demands and stresses of life (VandenBos, 2007). However, in most research endeavors in this context the research instruments measure mental disorder (illness) instead of mental health. Hence, the following definition of mental disorder is also presented: mental disorder is characterized by psychological symptoms, abnormal behaviors, impaired functioning, or any combination of these. Such disorders may cause clinically significant distress and impairment in a variety of domains of functioning and may be due to organic, social, genetic, chemical, or psychological factors (VandenBos, 2007).

Concerns have been raised that both physical and psychological health might be influenced by job attitudes. People who dislike their job could experience adverse health outcomes. These outcomes include both physical symptoms and psychological problems (Spector, 2000). Palmore (1969) claims that job dissatisfaction results in a shortened lifespan.

Some theories view job satisfaction as being the positive emotional reactions and attitudes an individual

has towards his/her job (Oshagbemi, 1999). Others have viewed it as a bi-dimensional construct consisting of intrinsic and extrinsic satisfaction dimensions (Warr *et al.*, 1979), or alternatively of satisfaction/lack of satisfaction and dissatisfaction/lack of dissatisfaction dimensions (Winefield *et al.*, 1988). VandenBos (2007) defines job satisfaction as the attitude of a worker toward his or her job, often expressed as a hedonic response of liking and disliking the work itself, the rewards (pay, promotions, recognition), or the contexts (working conditions, colleagues).

Job satisfaction is a topic of wide interest to people, who work in organizations and to those who study such people. In fact, it is the most frequently studied variable in organizational behavior research (Spector, 2000). Furthermore, it is a central variable in both research and theory of organizational phenomena ranging from job design to supervision.

There are good reasons for paying attention to job satisfaction. The humanitarian perspective prescribes that people deserve to be treated fairly and with respect. Job satisfaction, is to some extent, a reflection of good treatment. It also can be considered an indicator of emotional well-being or psychological health. The utilitarian perspective asserts that job satisfaction can lead to employee behavior that may affect organizational functioning. In addition, job satisfaction can be a

reflection of organizational functioning. Differences among organizational units in job satisfaction can be diagnostic of potential trouble spots.

Many correlational studies have shown a link between health and job satisfaction. Researchers have reported significant correlations between job satisfaction and physical or psychosomatic symptoms, such as, headache and upset stomach (Begley and Czajka, 1993; Fox *et al.*, 1992; Lee *et al.*, 1990; O'Driscoll and Beehr, 1994). Job satisfaction has also been found to be associated with emotional states of anxiety (Spector *et al.*, 1988) and depression (Bluen *et al.*, 1990; Schaubroeck *et al.*, 1992). Faragher *et al.* (2005), in their meta analysis the relationship between job satisfaction and health, conducted a systematic review of 485 studies with a combined sample size of 267995 subjects. They evaluated the research evidence that linked self-report measures of job satisfaction to measures of physical and well-being. The results indicated that the overall correlation combined across all health measures was  $r = 0.312$  (0.370 after Schmidt-Hunter adjustments). Job satisfaction was most strongly associated with mental/psychological problems; the strongest relationships were found for burnout (corrected  $r = 0.478$ ), self-esteem ( $r = 0.429$ ), depression ( $r = 0.428$ ) and anxiety ( $r = 0.420$ ). The relationships found suggest that job satisfaction level is an important factor influencing the psychological health of workers.

The present research was conducted to examine the relationship of the nine mental disorder: Somatization, obsessive-compulsive, depression, interpersonal sensitivity, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism to overall job satisfaction and its 5 components: satisfaction with work, co-workers, pay, promotion and supervision.

On the basis of the literature review, the following three hypotheses were presented and tested in this research:

- Overall job satisfaction is correlated negatively with each of the nine mental disorders of somatization, obsessive-compulsive, depression, interpersonal sensitivity, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism
- Each of the 5 components of job satisfaction consisting of satisfaction with work, supervision, co-workers, pay and promotion is correlated negatively with each of the nine mental disorders
- The 5 components of job satisfaction have a multiple correlation with each of the nine mental disorders

## MATERIALS AND METHODS

The population of this research consisted of high school principals and teachers in Iran. The sample included 828 subjects, 665 teachers and 163 principals. They were selected according to a random sampling method. The research instruments were as follows:

- Job Descriptive Index (JDI)
- The Symptom Checklist-90-Revised (SCL-90-R)

These instruments have shown high reliability and validity. In the present research, for JDI, Cronbach  $\alpha$ -coefficients ranged from 0.74-0.90 and the split-half coefficients ranged from 0.61-0.90. For SCL-90-R, Cronbach  $\alpha$ -coefficients ranged from 0.72 -0.90 and the split-half coefficients ranged from 0.71-0.89.

The validity coefficients for JDI, ranged from 0.51-0.78 for principals and from 0.51-0.69 for teachers. The validity coefficients for SCL-90-R, ranged from 0.23-0.61, all of which were significant, at  $<0.05$  statistical significant level.

## RESULTS

The descriptive findings and the findings relevant to the hypotheses. Descriptive findings, consisting of the means and standard deviations of the research variables, that is, job satisfaction and its 5 facets and the nine mental disorders, are presented in Table 1 and 2.

Table 1 contains the means and standard deviations of global job satisfaction and its 5 components. Table 1 shows that both principals and teachers have obtained the highest means on satisfaction with supervision and the lowest means on satisfaction with promotion. It is also evident that principals have higher means than teachers on the global job satisfaction and on four out of the 5 job satisfaction facets. On the other hand, the teachers have higher standard deviations on the global job satisfaction and on the same four facets of job satisfaction; although, the differences may not be statistically significant.

In order to explore, the possible differences between the means of principals and teachers on the 5 facets of job satisfaction, a repeated measure ANOVA was conducted. The results are shown in Table 2.

Since, the means of principals and teachers on the overall job satisfaction are 150.89 and 138.67, respectively, we conclude, from the between subjects section of Table 2 that principals have a significantly higher mean than that of teachers. In addition, the within subjects section of Table 2, shows that the total sample differs with respect to the 5 facets of job satisfaction, but there is no

significant interaction between groups and facets of job satisfaction at the 0.05 statistical significance level.

The means and standard deviations of the 9 mental disorders for the 2 groups of principals and teachers are shown in Table 3. As Table 3 indicates, the means of the three dimensions of depression, obsessive-compulsive and somatization are higher than the means of the other dimensions for the principals and teachers.

A repeated measure ANOVA was conducted on the scores of the 9 mental disorders to explore the differences between principals and teachers. The results are presented in Table 4.

Table 4 indicates that principals and teachers do not differ with respect to the overall mental health. Moreover, the total sample differs significantly on the nine mental disorders, while the interaction between groups and mental disorders is not significant at the designated 0.05 statistical level.

The simple correlation coefficients between the global job satisfaction and its 5 facets and the 9 mental disorders for principals are presented in Table 5. As it can be seen in Table 5 all but 6 of the 54 correlation coefficients are negative and statistically significant. The 6 non-significant coefficients are between satisfaction with promotion and the 6 mental disorders of obsessive-compulsive, interpersonal sensitivity, depression, anxiety, phobic anxiety and psychoticism.

The simple correlation coefficients between global job satisfaction and its facets and the 9 mental disorders for teachers are presented in Table 6. It can be seen in Table 5 that all of the 54 correlation coefficients are negative and statistically significant. In order to identify the facets of job satisfaction that contribute independently to the explanation of the variance of the

Table 1: Means and standard deviations of global job satisfaction and its 5 facets for principals and teachers

Variables	Principals		Teachers	
	Mean	SD	Mean	SD
Global job satisfaction	150.89	42.99	138.67	46.63
Satisfaction with work	32.21	10.64	31.68	11.53
Satisfaction with supervision	35.94	13.35	33.25	14.30
Satisfaction with pay	24.75	12.39	22.23	13.41
Satisfaction with promotion	23.97	14.78	20.46	14.57
Satisfaction with co-workers	31.01	13.83	31.06	13.38

Table 2: Results of a repeated measure ANOVA on the 5 facets of job satisfaction for principals and teachers

Source of variation	SS	df	MS	F	p-value
<b>Between subjects</b>					
A (groups)	3972.53	1	3972.53	9.45	0.002
Subjects within groups	344736.63	820	420.41		
<b>Within subjects</b>					
B (facets)	67249.48	4	16812.37	141.38	0.0001
AB	1060.94	4	265.24	2.23	0.063
B* subjects within groups	390031	3280	118.91		

Table 3: Mean and standard deviations of principals and teachers on 9 mental disorders

Dimensions of mental disorders	Principals		Teachers	
	Mean	SD	Mean	S D
Somatization	6.44	6.86	7.04	6.60
Obsessive-compulsive	6.23	5.39	7.29	5.99
Interpersonal-sensitivity	3.96	4.70	4.77	4.68
Depression	6.93	6.96	7.91	7.54
Anxiety	4.74	6.18	5.12	5.90
Hostility	3.28	3.14	3.30	3.29
Phobic anxiety	1.30	2.39	1.51	2.59
Paranoid ideation	4.99	4.78	5.88	4.54
Psychoticism	2.68	3.59	3.35	4.47

Table 4: Results of a repeated measure ANOVA on the 9 mental disorders for the principals and teachers

Source of variation	SS	df	MS	F	p-value
<b>Between subjects</b>					
A (groups)	458.18	1	458.18	2.66	0.103
Subjects within groups	141124.48	819	172.31		
<b>Within subjects</b>					
B(mental disorders)	16379.01	8	2047.38	215.13	0.0001
AB	128.66	8	16.08	1.69	0.095
B*subjects within groups	62355.02	6552	9.52		

Table 5: Correlation coefficients between job satisfaction and its 5 facets and the 9 mental disorders for principals

Mental disorders	Work r (p)	Supervision r (p)	Pay r (p)	Promotion r (p)	Co-worker r (p)	Overall satisfaction r (p)
SOM	-0.24 (0.001)	-0.20 (0.005)	-0.19 (0.005)	-0.14 (0.034)	-0.32 (0.0001)	-0.33 (0.0001)
O-C	-0.26 (0.001)	-0.19 (0.008)	-0.18 (0.011)	-0.08 (0.142)	-0.30 (0.0001)	-0.30 (0.0001)
I-S	-0.31 (0.0001)	-0.21 (0.003)	-0.22 (0.003)	-0.07 (0.169)	-0.28 (0.0001)	-0.32 (0.0001)
DEP	-0.29 (0.0001)	-0.23 (0.002)	-0.24 (0.001)	-0.12 (0.06)	-0.12 (0.0001)	-0.35 (0.0001)
ANX	-0.27 (0.0001)	-0.22 (0.02)	-0.17 (0.012)	-0.10 (0.107)	-0.28 (0.0001)	-0.31 (0.0001)
HOS	-0.25 (0.001)	-0.18 (0.01)	-0.16 (0.018)	-0.14 (0.035)	-0.30 (0.00001)	-0.31 (0.0001)
PHOB	-0.13 (0.01)	-0.12 (0.05)	-0.27 (0.0001)	-0.04 (0.297)	-0.33 (0.0001)	-0.13 (0.0001)
PAR	-0.12 (0.003)	-0.23 (0.001)	-0.20 (0.005)	-0.16 (0.018)	-0.25 (0.001)	-0.33 (0.0001)
PSY	-0.22 (0.0001)	-0.21 (0.003)	-0.13 (0.04)	-0.07 (0.170)	-0.29 (0.0001)	-0.28 (0.0001)

Table 6: Correlation coefficients between job satisfaction and its 5 facets and the 9 mental disorders for teachers

Mental disorders	Work r (p)	Supervision r (p)	Pay r (p)	Promotion r (p)	Co-worker r (p)	Overall satisfaction r (p)
SOM	-0.17 (0.0001)	-0.18 (0.0001)	-0.14 (0.0001)	-0.13 (0.034)	-0.17 (0.0001)	-0.23 (0.0001)
O-C	-0.24 (0.001)	-0.21 (0.001)	-0.13 (0.001)	-0.19 (0.001)	-0.19 (0.0001)	-0.28 (0.0001)
I-S	-0.24 (0.0001)	-0.20 (0.003)	-0.15 (0.003)	-0.16 (0.001)	-0.20 (0.0001)	-0.27 (0.0001)
DEP	-0.24 (0.0001)	-0.20 (0.002)	-0.17 (0.001)	-0.20 (0.01)	-0.19 (0.0001)	-0.30 (0.0001)
ANX	-0.19 (0.0001)	-0.18 (0.02)	-0.16 (0.002)	-0.18 (0.007)	-0.17 (0.0001)	-0.26 (0.0001)
HOS	-0.20 (0.001)	-0.20 (0.01)	-0.13 (0.001)	-0.16 (0.001)	-0.20 (0.00001)	-0.25 (0.0001)
PHOB	-0.13 (0.01)	-0.10 (0.05)	-0.07 (0.0001)	-0.14 (0.001)	-0.08 (0.0001)	-0.15 (0.0001)
PAR	-0.28 (0.001)	-0.29 (0.001)	-0.17 (0.005)	-0.23 (0.001)	-0.29 (0.001)	-0.36 (0.0001)
PSY	-0.21 (0.0001)	-0.14 (0.001)	-0.08 (0.01)	-0.11 (0.001)	-0.16 (0.0001)	-0.20 (0.0001)

Table 7: Results of 9 regression analysis for the 5 facets of job satisfaction as predictors and the nine mental disorders as criteria for principals

Mental disorders	MR	SR	F	p-value
SOM	0.32	0.10	18.73	0.0001
O-C	0.35	0.12	10.89	0.0001
I-S	0.36	0.13	11.74	0.0001
DEP	0.37	0.14	12.66	0.0001
ANX	0.34	0.11	10.23	0.0001
HOS	0.34	0.11	10.40	0.0001
PHOB	0.40	0.16	14.82	0.0001
PAR	0.30	0.09	7.68	0.0001
PSY	0.29	0.08	14.75	0.0001

Table 8: Results of 9 regression analysis for the 5 facets of job satisfaction as predictors and the nine mental disorders as criteria for teachers

Mental disorders	MR	SR	F	p-value
SOM	0.23	0.05	12.48	0.0001
O-C	0.28	0.08	19.59	0.0001
I-S	0.28	0.08	19.39	0.0001
DEP	0.29	0.08	20.35	0.0001
ANX	0.24	0.06	14.23	0.0001
HOS	0.26	0.06	16.10	0.0001
PHOB	0.14	0.02	14.39	0.0001
PAR	0.38	0.14	39.81	0.0001
PSY	0.23	0.05	18.64	0.0001

9 mental disorders in principals and teachers a stepwise multiple regression analysis was conducted for each of the disorders. The results are presented in Table 7 and 8.

Table 7 shows that for principals, satisfaction with co-workers is the predictor of all the 9 mental disorders. Satisfaction with work can predict the 6 mental disorders of obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility and phobic anxiety. Finally, satisfaction with supervisor is the predictor of only 1 mental disorder that is, paranoid ideation.

As it can be seen in Table 8, for teachers, satisfaction with work is the predictor of all the 9 mental disorders. Satisfaction with co-workers is the predictor of 7 mental disorders of somatization, obsessive-compulsive, depression, interpersonal sensitivity, anxiety, hostility,

phobic anxiety, paranoid ideation and psychoticism. Satisfaction with supervision is the predictor of 6 mental disorders of somatization, obsessive-compulsive, interpersonal sensitivity, anxiety, hostility and paranoid ideation. Satisfaction with promotion is the predictor of 4 mental disorders of depression, phobic anxiety, paranoid ideation and psychoticism. Finally, satisfaction with pay is only the predictor of anxiety.

## DISCUSSION

First, a brief summary of findings is presented. Then we discuss Findings, their shortcoming and their implications for the development of organizations and the well-being of the workforce.

- Principals overall job satisfaction is higher than that of the teachers
- The total sample's satisfaction with the nature of work, supervision and co-workers is higher than that of satisfaction with pay and promotion
- Job satisfaction, in general and satisfaction with work, supervision and co-workers, in particular, are about average and satisfaction with pay and promotion are below average
- The means of the 9 mental disorders for principals and for teachers indicate that teachers are not suffering too much from these disorders
- The simple correlation coefficients between the global job satisfaction and its 5 facets, on the one hand and the nine mental disorders, on the other hand, for both principals and teachers are all negative and statistically significant, at least, at the 0.05 level. SCL-90-R scales measure 9 mental disorders in a manner that high scores mean possessing higher

degrees of mental illness. On the other hand, JDI scales measure 5 facets of job satisfaction in a way that high scores mean greater amounts of job satisfaction. That is why the correlation coefficients between scales of SCL-90-R and those of JDI are negative. If the scoring of SCL-90-R is reversed, so that high scores indicate lower degrees of mental disorder and higher degrees of mental health, then the obtained correlation coefficients become positive. Hence, we can infer that there is a positive relationship between job satisfaction and mental health.

- The results of the stepwise multiple regression analyses for principals show that:
  - Satisfaction with co-workers is the predictor of all the 9 mental disorders
  - Satisfaction with the nature of work is the predictor of 6 mental disorders of obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility and phobic anxiety
  - Satisfaction with supervision is the predictor of only one mental disorders, that is paranoid ideation
- The results of the stepwise multiple regression analyses for teachers show that:
  - Satisfaction with the nature of work is the predictor of all the nine mental disorders
  - Satisfaction with co-workers is the predictor of seven mental disorders of somatization, obsessive-compulsive, interpersonal sensitivity, anxiety, depression, hostility, paranoid ideation and psychotism
  - Atisfaction with supervision is the predictor of the 6 mental disorders of somatization, obsessive-compulsive, interpersonal sensitivity, anxiety, hostility and paranoid ideation
  - Satisfaction with promotion is the predictor of four mental disorders of depression, phobic anxiety, paranoid ideation and psychotism
  - Satisfaction with pay is the predictor of only 1 mental disorder that is anxiety

Comparing the results of this study to those reviewed in the literature review section of this article, highlights clearly the compatibility between these two sets of results. This compatibility is more obvious when we consider the results of the meta-analysis study by Faragher *et al.* (2005). Furthermore, the present research has shed some light on the relation of job satisfaction to some new mental disorders for the 1st time. These are the negative correlation coefficients found between overall job satisfaction and its 5 facets and the mental disorders of obsessive-compulsive, interpersonal sensitivity, paranoid ideation and psychotism.

However, we should be cautious in generalizing the new findings excessively, due to the fact that the sample of this research was not selected randomly from the general population. Moreover, it is obvious that job satisfaction has consequences other than mental disorders and mental disorders have precedents other than job satisfaction. Thus, research should be directed toward other precedents of mental health to enhance it in the workforce. Similarly, more research is needed to identify the causes and consequences of job satisfaction in our organizations.

### RECOMMENDATION

Based on the results of this research, we recommended that our organizations launch research projects to identify work practices that cause most job satisfaction and dissatisfaction among their workforce. This will pave the way for the implementation of proper interventions to enhance the favorable work practices and to eradicate the dysfunctional ones. Such a policy will lead to improvements in the employees quality of life and in the productivity of the organizations.

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