

The Relation Between Stress And Individual Efficiency Of High School Principals

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Abstract: The study involves “determining stress causing factors considering various aspects and also the relation between stress and individual efficiency of Tabriz high school principals. The research is conducted in purposes below:

1. Determining the relation between individual factors and Tabriz high school principals.
2. Determining occupational factors and stress of Tabriz high school principals.
3. The relation between stress and individual efficiency of Tabriz high school principals. Following the expressed purposes, our hypothesis and questions about the research is stated as:

Question:

Is there any relation between stress and individual factors? And research hypotheses are:

1. There's a relation between occupational factors and high school principals.
2. There's a relation between principals' stress and individual efficiency.

Research is correlated type and the statistical society includes all Tabriz high school principals as many as 198 people and samples are 135 out of this number.

Key words:

INTRODUCTION

Stress is a new topic being discussed in many world scientific gatherings. At first it was limited to medical science and as a result, its consequences were only considered in physiotherapy. But in recent years behavioral specialists consider stress not only as an illness but also as a Undeniable fact in human life.

Stress is result of internal conflicts caused by external situations (Ganji 1360).it has negative effects on human body can easily affect human nerve and Immune system. And consequently cause disturbance in all movements and normal actions and harm human health.

In case of principals, whether stress can consume their efficiency, lack of understanding and not preventing that, this active and effective group of people can be naturally affected and it can impose irreversible harms to different parts of society.

In case of efficiency we can generally express that, this is a factor to guarantee Sustainability and survival of an organization in this competitive world.< the term efficiency was first I introduced in an article by Quinzly in 1766 and century later in 1883 , Liter , introduced the term as 'power and producing ability'. In fact efficiency expresses eagerness in productivity. (Abtahi 1375) and after about 240 years, efficiency is a topic being discussed in all social, economical and cultural systems and <it's defined as efficient use of sources and available facilities in order to produce each goods or services>

This is so important that productivity culture causes optimized utilization of these organizations in all aspects and as a result, powers, talents and potential possibilities of these organizations will flourish and without applying new human force and technology, and just with the available productive and creative potential, achieve the highest gain in that organization. In this era its believed that the desired productivity is not gained through restructuring, technology adding, organization plan editing and sending different instructions but human is center of each individual, social and all organization productivity. Therefore more attention should be paid to human factors in planning of an organization efficiency and productivity.

In 1995 Japan industry insisted on 5 factors to improve efficiency. The first factor was to put staff education in priority and the second factor was to improve investment and fundamental research (Taheri, 1380). Then with the idea that the efficiency of principals is a important factor in organizations and society progress and should be more considered than before due to importance of education principals and , efficiency and their effective role in active participation in workforce and the supplying all workforce out of this organization.

Ever since stress can cause a reduction in efficiency, then to know the effects and especially on principals should be vitally considered and inattention in this matter can face the organization with serious consequences <because stress has many effects on the performance and activities of members of an organization. And principals suffer particular mental difficulties and behave in a way that directly affects the efficiency of the organization.

Stress has physical effects and can consume the generative work force of an organization and as a result destroys the purposes and can impose heavy costs to the organization

Overall objectives, research questions and theorem

This study tries to determine the effective factors in stress from different aspects and finally its purpose, is to give a better understanding of relation between stress and individual efficiency of Tabriz high schools.

Research question

Is there any relation between stress and individual factors in high schools?

Research hypothesis:

1. There is a relation between stress and occupational factors in high schools
2. There's a relation between stress and principals efficiency.

Research methodology:

As the writer has not changed any variables and has just analyzed the relation between variables, therefore the present study is a descriptive correlative type and as well as a standard questionnaire it collects its data. This is a minor study but expanded.

The presented statistical society includes all high school principals in all 5 districts of Tabriz between 1381 to 1382 that include 198 people as the relevant organization has stated. (statistics,1382)

The sample is taken out from Morgan table which is 135 people. To choose the studied unit (principals), they are randomly chosen. at first the institutes are divided by their gender whether girls study there of boys and therefore they are randomly chosen and finally the questionnaire is provided and the distributed among those being selected before.

To measure to validity of the study, the presented questionnaire and the questions are consulted with well educated experts and gathering the opinions and changing the questionnaire to fix the probable errors, the final questionnaire is set. And to measure the validity of study first the results of analyzing the 30 principals is gathered. And then by S PSS software it's Karanbakh Alfa coefficient is extracted by karanbakh Alfa ($\alpha=0.83$) the final questionnaire is prepared.

5- Analysis of data and test of hypothesis:

Question number one: is there any relation between stress and individual factors in high schools?

Individual factors of principals are: management experience, in-service years, principal age, and principal gender, in service trainings and principals education. Then relation between all these items and stress is separately analyzed and examined

1-1 Is there any relation between stress and in-service period of principals?

One of the parts of question number one is to examine the relation between stress and in-service period of principals. Considering that the two variables are distant (to measure the stress level the value of all multiple choices answered by test takers are summed up to create a distant variable called 'stress level') then to conduct the survey, Pierson correlation test is applied. Results are shown in the table below. As the data in the table demonstrate, the credibility level and the correlation co efficient are $R=0.284$ and $p=0.001$. In regard with the credibility level is less than $P=0.5$ then it can be seen that the reaction between stress and in-service experience is proved or in the other words each valuable is increased by increasing the other one.

1-2 is there any relation between stress and management experience?

In this part of the question 1, a relation between stress and management experience of principals is studied. As the Pierson correlation test shows, there's no meaningful relation between stress and principal's management experience. Because the correlation coefficient is less than the accepted value an much less than $R=0.140$. Also the credibility level is more than /05 and equals to $P=1/05$. Therefore it can be concluded that there's no meaningful relation between stress and management experience.

Table 1: descriptive data of Pierson correlation test relevant to stress and principal in-service period

Credibility level	Correlation coefficient	Standard deviation	average	description
0.001	0.284	12.66	62.47	stress
		5.94	19.44	In- Service period

Table 2: descriptive data of Pierson correlation test relevant to stress and management experience

Credibility level	Correlation coefficient	Standard deviation	average	description
0.105	-0.140	12.66	62.47	Stress
		5.5	7.25	Management experience

1-3- Is there any relation between principals and their age?

In question number one a relation between principal's distinctive characteristics and their stress is studied. In this section a relation between principals and their stress is examined and because the two variables are distant type then Pierson correlation test is applied and the results from above test are brought in the table below. As the data in the table show the credibility level is $P=0.004$ and the mentioned amount is less than $P=0.105$.

And it can be concluded that there's a meaningful relation between stress and their age

Table 3: descriptive data of Pierson correlation test relevant to stress and principal age

Credibility level	Correlation coefficient	Standard deviation	average	description
0.004	0.243	12.66	62.47	stress
		9.3	43.47	Age

1-4 Is there any meaningful difference between man and woman stress:

Stress differences between man and woman are the question of this section. In regard to using a distant variable (stress) between the two groups of men and women is examined via T-test and considering stress average value (a distant variable) in the two separated groups are different from each other. (Credibility level is less than $P=0.05$). Therefore in regard to higher stress level of women teachers, it can be concluded that the stress level of women is meaningfully different in comparison to men.

The gained coefficient is $T=3.08$ and the average of men and women principals are 56.2 and 62.9 respectively

Table 4: T-test descriptive results relevant to stress differences between men principals and women principals

Credibility level	Correlation coefficient	Standard deviation	average	description
0.003	3.08	13.79	56.28	Men
		9.60	62.95	women

1-5 Is there any relation between in-service hours of principals and their stress level?

In this part of the study, a relation between stress and in-service hours of principals is examined. As Pierson correlation test shows there's no relation between the two distant stress variable and in-service hours, because correlation coefficient is much less than $R=0.057$. And also credibility level is more than 0.05 and it equals to $P=0.542$. Therefore it can be concluded that there's not a meaningful relation between stress and in-service hours of principals

Table 5: descriptive data by Pierson correlation test relevant to stress and in-service hours of principals

Credibility level	Correlation coefficient	Standard deviation	average	description
0.542	0.057	12.66	62.47	stress
		240.5	360.9	In-service hours

1-6 Is there any difference between principal stress due to their education level?

The objective is to study the differences between stress levels due to their education. Their education is divided into three levels as Associate Degree versus B.S and M.S and stress variable is distant type. To examine the question, variance analysis is applied. Descriptive info of three education level is brought in the table below. And the data out of variance analysis is brought in the next table. And the data show that credibility level is less than $P=0.05$ which is less than the maximum value accepted for the question ($0.05 > 0.001$) and the outcome is that the theorem of the question is proved and it's obvious that there's relation between education and principal stress.

Table 6: descriptive data concerning stress level of principals according to their education level

Maximum	Minimum	Standard deviation	average	description
81	49	12.02	67.7	Associate Degree
78	53	8.14	62.76	B.S
71	28	22.20	49.5	M.S

Table 7: descriptive data concerning stress level of principals according to their education level

Credibility level	F value	Squares average	Freedom degree	Sum of squares	description
0.001	13.5	1830.6	2	3661.2	Between Groups
-	-	135.04	132	17826.3	Within a group
-	-	-	134	21487.6	Total

To examine the differences between groups test is applied. The information shown in the table shows that there's meaningful difference between stress levels of the following principals

- Associate Degree versus B.S
- Associate Degree versus M.S
- Versus M.S Associate Degree
- M.S versus B.S

Table 8: test descriptive information relevant to differences between stresses due to their education

Credibility level	Standard error	differences	Groups
0.036	2.33	4.9	Associate Degree versus B.S
0.001	3.5	18.2	Associate Degree versus M.S
0.036	2.33	-4.9	B.s versus Associate Degree
0.001	3.17	13.2	B.S versus M.S
0.001	3.50	-18.2	M.S versus Associate Degree
0.001	3.17	-13.2	M.S versus B.S

The first theory: there's a relation between stress and occupational factors

The first theory of this study, examines stress and occupational factors.

To measure the level of stress a questionnaire containing 20 questions (questions with 5 multiple choices) is arranged. This questionnaire is prepared by Miller and Smith in central medical part of Boston University in which each question has 5 levels as follow: 1(almost always), 2(Consecutive),3(Sometime) , 4 (almost never) and finally 5 (never) and 8 questions are considered to measure occupational factors in a way that all test takers determined the job pressure impacts after collecting the questionnaire , each one of multiple choices value are as follow :

The sum of all the answers given by test takers for individuals an occupational factor is gained

In Regard to the two distant variables in the question, correlation test is applied and the results are shown as follow in the table. And as obvious in table correlation coefficient is $R=0.379$ and credibility level is $P=0.001$. And as credibility level is less than ($R=0.05$) we can conclude that there's a relation between stress and occupational factors. by increasing each variable in this research , the other variable automatically increases.

Table 9: Pierson correlation test descriptive information referring to relation between stress and occupational factors

Credibility level	Correlation coefficient	Standard deviation	Average	description
0.001	0.379	7.88	25.15	Principal's occupational factor
		12.66	62.47	Stress level

The second Hypothesis: there's a relation between principals and individual efficiency

Stress impact on personal efficiency is the second theory of this study. In Regard to the two distant variables, Pierson correlation test is applied to find out the relation between stress and efficiency of each principal. The results are brought in the table shows that the stress and individual efficiency have a meaningful and inverse relation. Because the credibility level is $P=0.008$ and its less than the standard amount ($p=0.05$).

Therefore it can be considered that with increasing the principal stress , their efficiency reduces. The correlation coefficient is $R=-0.244$.

Table 10: Pierson correlation test descriptive information referring to relation between stress and individual efficiency

Credibility Level	Correlation coefficient	Standard deviation	average	description
0.008	-0.244	12.66	62.47	stress
		8.74	25.65	efficiency

Conclusion:

Research results are as follow:

- There's a relation between stress and principal's gender
- There's no relation between in-service term of high school principals and stress.
- There's a relation between stress and principal's education level.
- There's a relation between stress and job experience
- There's a relation between stress occupational factors of high school principals
- There's a relation between principal stress and individual efficiency
- There's a relation between stress and high school principal's age
- There's a relation between stress and work experience

Recommendations:

In regard to outcome of the questionnaire, recommendations are as follow:

1-with regard to proved theory of relation between occupational factors and principals' stress , its recommended to avoid frequent exchanging of them to minimize level of their stress.

2-in regard to lower stress level of M.S principals in comparison to B.S ones and so on, it's recommended that principals be selected of those with higher education.

3-it's recommended that all high school principals be given the authority to make decisions and to execute this important matter its essential to develop school concentrated policies.

4-authorities supervise and control the framework of school concentrated policies. And shun unnecessary supervisions.

5-it's recommended that to promote principals efficiency, appreciating successful principal should be put into organization's plans.

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