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Dysfunctional attitudes and emotional stress in technical employees

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Abstract. The results of such a study have clinical applications in the field of employee health. Thus, identifying irrational ideas as well as dysfunctional emotions in employees in the economic field can be useful in the effective management of distress in them. In order to avoid the burnout syndrome in this category of employees, being known the high workload, the pressure of superiors and the existence of well-defined skills, as well as the low performance at work, it is important to identify mediators of emotional distress by periodic testing with tools such as the one in this study. In addition, it is important not only to identify these emotional-affective and psychosomatic imbalances but also to orient employees towards different specialized intervention programs. Thus, programs can be developed for the management of dysfunctional emotions and various emotional disorders that can develop throughout the professional career.

Keywords. Attitudes, stress, employees

Introduction

Hans Selye argues that stress is impossible to avoid and that life itself in every aspect represents the stress of H. Selye (1993).

Stress is highlighted by researchers D. R. Earnest & W. O. Dwyer (2010) as an emotional or physical state caused by exposure to a challenging and overworked situation.

The workplace is a significant arena in life for most adults. Therefore, a traumatic event at work can have profound consequences for employees (Stansfeld and Candy 2006). The set of problems regarding emotional distress in employees from different work environments is a topical benchmark in the study and research of organizational health.

Occupational stress is a problem that more and more employees face. Among the professions most vulnerable to stress are those in the technical field, such as technical engineers and workers working at height.



Research has shown the implications of emotional distress on the occurrence and development of various emotional disorders throughout one's career. That is why it is important to know the implications of stress in the occurrence of mental imbalances in order to prevent or reduce their incidence.

For this reason, periodic psychological testing of employees in this field and even psychiatric evaluation (for technical engineers) was required.

The general idea of stress has a very broad meaning and has become a widely used concept to emphasize the negative effects it has on employees' professional performance and health.

Stress is "the physical, mental, or emotional reaction to tension, conflict, or pressure." When the safety of the individual is endangered, reactions such as "fight or fly / fly" will be activated to escape the danger. (Fontana & Abouserie, 1993: 261).

There are several paradigms that explain the concept of stress. Thus we have:

1. The paradigm of stress as a stimulus - requires the identification of the main sources of stressors in the work environment and people's lives.

2. Transactional theory of stress - developed by Lazarus (cited in Baban, 1998: 189) defines stress as a relationship of interaction between person and environment, which assesses the demands of the environment that exceed the person's adaptive resources, which determines the activation of coping mechanisms at physiological, cognitive and behavioral level.

3. The paradigm of stress as a physiological reaction - according to Zlate (2007: 570) "Stress is the physiological or psychological response of the individual to an environmental stressor." Selye described biological stress as a general adaptation syndrome (SGA) and includes the sum of non-specific responses to any request from the body. The concept of burnout was introduced following research on the consequences of chronic stress and can be defined as an affective reaction to permanent stress whose central node is the gradual depletion of individual energy resources, including emotional exhaustion, physical fatigue, boredom and cognitive discouragement (Shirom, 2003).

These explanatory models of stress play an important role in understanding and interpreting the concept of occupational stress. There are two meanings of stress in the literature: eustress and distress. Eustress is considered to have favorable consequences for the body in which stressors are pleasant stimuli that cause pleasant or positive emotional states. On the other hand, distress refers to prolonged overstimulation of the body that exceeds personal resources leading to decreased performance, physical and psychosomatic disorders.

Dysfunctional cognitive patterns are part of the cognitive theory of depression developed by A. Beck (1967), in which depressive patterns and central beliefs are structures that can be activated by stressful life events. A. Beck's cognitive model postulates that depressed people think more negatively about themselves, the world and the future than people unaffected by this disorder. This negative outlook on life - expressed in the phrase "negative cognitive triad" lies behind the specific symptoms of major depressive disorder (Beck, 1967). Once activated, dysfunctional patterns produce systematic errors in thinking. The presence of dysfunctional attitudes may be a predisposition for the onset of major depressive disorder.



The purpose, objectives and hypotheses of the research

The present study aims to investigate the problem of stress and dysfunctional cognitive patterns in the case of technical professions.

The main objectives of the study are:

- identifying a relationship between seniority in the field and the existence of emotional stress
- identifying a relationship between the variable emotional stress and the presence of dysfunctional attitudes

The main hypotheses from which we started in conducting the study are:

1. It is assumed that there is a positive correlation between emotional distress and the presence of dysfunctional attitudes

2. It is assumed that there are significant differences in the level of emotional distress in new employees and the level of emotional distress in old employees.

Research tools

In a scientific research it is very important the correct conceptualization of the behaviors to be tested as well as the use of methods and means specific to them.

This involves the use of testing tools appropriate to the objectives of the study to eliminate the possibility of erroneous results. That is why the construct validity of the tests used is very important.

For this study we used two research tools, namely: Emotional Distress Profile (PDE) and Dysfunctional Attitudes Scale, form A (DAS-A).

Presentation of the group of participants

For this study, the two research tools were applied to employees in the technical sector, a total of 30 participants. The inclusion criteria were their firm choice to answer the questions and requirements of the scales used as well as minimal skills in understanding the concepts used.

Confidentiality in the study was ensured by assigning a number to each participant, and the questionnaires applied were anonymous. The participants were predominantly male (25), the female being in the minority (5).

Thus, as independent variables we identified: age - under 30 years, over 30 years (dichotomous variable) and seniority in the field of work - under 5 years and over 5 years (dichotomous variable).

Working procedure

Regarding the working procedure, we selected the research tools that we applied during December 2019-January 2020 to the 30 participants.

After application, the psychometric questionnaires were scored, we calculated the levels of each of the participants and we created the database in the S.P.S.S.

Then we calculated the indices of the central value (mean, median, modulus, standard deviation, symmetry and vaulting), we made the histograms for each variable tested and we analyzed the shape of the distribution.



In order to see if the distribution respects the properties of the normal distribution, ie the normality of the distribution and the homogeneity of the variants, the Normality test was applied. Based on the values, it was decided which type of analysis method to use, ie a parametric method or a non-parametric method.

For the correlation where the variables had a value greater than 0.05 we used the Pearson correlation, for the correlation where the variables had a value less than 0.05 we used the Spearman correlation, and to test if there are statistically significant differences we applied the T test for independent samples.

Data analysis and interpretation

Hypothesis no. 1: It is assumed that there is a positive correlation between emotional distress and the presence of dysfunctional attitudes

Table 1. Start statistical indices

		Stress	Dysfunctional attitudes
N	Valid	30	30
	Missing	0	0
Mean		55.23	148.60
Median		56.00	148.00
Mode		48 ^a	143 ^a
Std. Deviation	5.	900	4.423
Skewness		.113	.586
Std. Error of Skewness	.	427	.427
Kurtosis		-1.364	-.591
Std. Error of Kurtosis	.	833	.833

a. Multiple modes exist. The smallest value is shown

The table above shows the averages, the median, the modulus, the standard deviation, the inclination and the vaulting of the distribution for the two variables - emotional distress and dysfunctional attitudes.

Table 2. Distribution normality test

	Kolmogorov-nova ^a			Shapiro-		
	Statistic	df	Sig.	Statistic	df	Sig.
Stres	.14	30	.103	.92	30	.03
Atitudinidis	.15	30	.067	.93	30	.04

a. Lilliefors Significance Correction



In order to verify that the distribution is normal, we used the test of normality of the Kolmogorov-Smirnov distribution (Table 2). Given that the values for both variables are greater than 0.05 I decided to use the Pearson correlation.

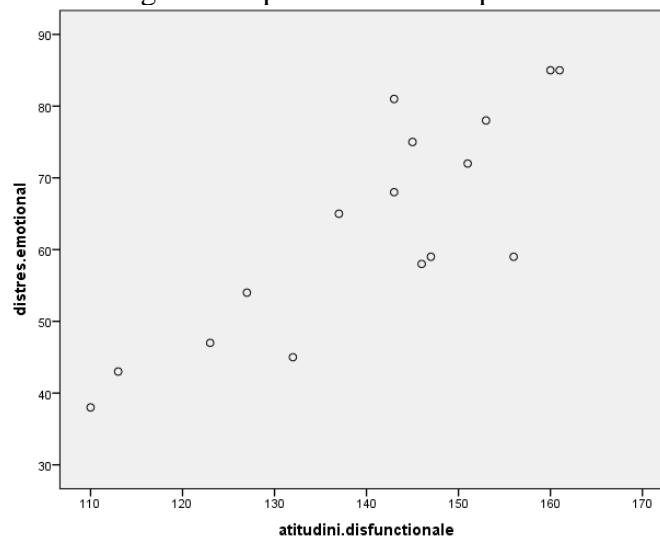
Table 3. Correlation between emotional distress and dysfunctional attitudes

		Stres	dysfunctional attitudes
Stres	Pearson Correlation	1	.506**
	Sig. (2-tailed) N		.004
Atitudinidisf N	Pearson Correlation	30	30
	Sig. (2-tailed)	.506**	1
		.004	
		30	30

Table 3. shows the correlation between the level of emotional distress and the presence of dysfunctional attitudes, where the value of r is 0.50 at a threshold of significance $p = 0.01$ which means that the hypothesis is confirmed.

In formulating this hypothesis, we started from the premise that people with dysfunctional attitudes that can lead to depressive disorders have high levels of emotional distress, represented by dysfunctional emotions such as depression, worry, panic, hopelessness or feelings of worthlessness.

Fig. 4. The point cloud of the correlation



In the figure above is the representation of the point cloud of the correlation between the two variables. An upward scattering of scores can be seen to the right.

Hypothesis no. 2: It is assumed that there are significant differences in the level of emotional distress in new employees and the level of emotional distress in old employees.



Table 5. Starting statistical indices

		Stres	Atitudinidi
N	Valid	30	30
	ing	0	0
Mean		55.2	148.6
Median		56.0	148.0
Mode		48 ^a	143
Std. Deviation		5.90	4.42
Skewness		.11	.58
Std. Error of		.42	.42
Kurtosis		-1.364	-.591
Std. Error of Kurtosis		.83	.83

a. Multiple modes exist. The smallest value is

Table 5 shows the central values of emotional distress measured in the two groups of subjects, according to the criterion of professional experience.

Table 6. Distribution normality test

	Varsta	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Stres	under 5 years	.196	15	.125	.889	15	.065
	Over 5 years	.196	15	.127	.912	15	.145

a. Lilliefors Significance Correction

We used the distribution normality test (Table 6) to find out if the distribution is normal. Analyzing the value of Sig we deduced that it is greater than 0.05 for all four variables, respectively 0.125 and 0.127 for both variables analyzed. Due to this fact I deduced that the distribution is normal and consequently I have to use a parametric method. For this we used the T test for independent samples.



Table 7. Start-up statistical indices according to the variable professional seniority
Group Statistics

	Varsta	N	Mean	Std.	Std. Error
Stres	sub 5 ani	15	60.4	2.898	.748
	peste 5 ani	15	50.0	2.549	.658

Table 7 contains the average of the scores obtained by each category, respectively those with less than 5 years of age and those with more than 5 years of age, for the variable emotional distress. Thus, it can be seen that the average score for subjects in the first category is about 60 compared to subjects in the second category, who obtained an average of about 50.

This supports the hypothesis from which we started, according to which there are significant differences between the two categories, in the sense that those with higher professional experience experience lower levels of emotional distress.

Table 8. T test for samples

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Stres	Equal variances assumed	1.041	.316	10.370	28	.000	10.333	.997	8.292	12.375
	Equal variances not assumed			10.370	27.549	.000	10.333	.997	8.291	12.376

According to table 8 the value of $t = 10.37$, degrees of freedom 28, at a significance threshold higher than 0.01, being higher than the criterion value in table T student, which means that the hypothesis was refuted. This may be due to the inequality of the two groups, the small number of subjects in each sample.

Limits and perspectives

This study was conducted for scientific purposes, having a descriptive-applicative character. Due to the fact that studies performed on such populations are rarer because access to them is more difficult, we considered that this approach makes a significant contribution to a deeper knowledge of the psychological characteristics of this category.

The premises from which we started in conducting this study were based on empirical observations and generally accepted theories. The data obtained from the statistical interpretation partially confirmed the hypotheses of this study. This may be due to a number of factors.

In the present case, the limits were given to the fact that there were certain restraints on the part of the subjects when applying the research tools. Staff are generally more reluctant about



the purpose of such a study, the possibility of disclosing personal information to third parties, and the likelihood that this will affect them. The small number of the sample also made it possible to distort the results and extrapolate them to the population to which it belongs. I can say that the obtained results recommend that in the future other studies in this respect be carried out, with deeper implications from the applicative point of view.

Certainly the psychological profile of this category is extremely complex, and in-depth knowledge is very useful for recruitment and specific intervention.

References

- Băban, A. (2005). Health psychology, Course support, Cluj - Napoca: "Babeş Bolyai" University,
- Beck, A.T. (1967). Depression: Causes and treatment. Philadelphia: University of Pennsylvania Press.
- Earnest, D. R., & Dwyer, W. O. (2010). In their own words: An online strategy for increasing stress-coping skills among college freshmen. *College Student Journal*, 44, 4, 320-346.
- Fontana, D., & Abouserie, R. (1993). Stress level, gender, and personality factors in teachers. *British Journal of Educational Psychology*, 63, 2, 261-270.
- Selye, H. (1993). History of the stress concept. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (2nd ed.), (pp. 7-20). New York: Free Press.
- Shirom, A. (2003). Job-related burnout: A review, în J.C.Quick, L.E.Tetrick (eds.), *Handbook of Occupational Health Psychology*, Washigton, DC: American Psychological Association
- Stansfeld SA, Candy B. (2006). Psychosocial work environment and mental health—a metaanalytic review. *Scandinavian journal of work, environment, and health*, 32: 443–462. PMID: 17173201
- Zlate, M. (2007). *Treatise on managerial organizational psychology, Vol.II*, Iaşi: Polirom Publishing House