

# A STUDY ON TEACHING PROFESSIONAL STRESS AMONG SELF-FINANCING ENGINEERING COLLEGES

Dr.S.Samraj

Assistant Professor, Department of Management Studies, CSI Institute of Technology, Thovalai-629 302.

**Abstract:** In recent years, Kanyakumari District has witnessed the rapid growth of self-financing engineering institutions and these institutions offer a variety of courses in engineering disciplines. Moreover, these institutions have to compete with one another in admitting students to different branches of study in every academic year. Stress affects teaching faculty of these engineering institutions, and now-a-days engineering institutions face stress as a big problem. In the work environment stress occurs due to demand that exceeds the individuals' coping ability, disrupting their psychological equilibrium. A clever understanding of the inter-relationship of the various facets of stress in an engineering institution offers the opportunity for the employers to develop efficient coping strategies to manage the stress level of the employees. There is a lack of extensive research on stress management of higher educational institutions. At the same time, there is an apparent lack of interest towards stress management among self-financing engineering institutions even today. Hence this study seeks to explore the stress management of teaching faculty in self-financing engineering institutions in Kanyakumari District of Tamil Nadu.

**Keywords:** *Engineering College, Higher Education and Stress management.*

## I. INTRODUCTION

The higher education sector in India has registered a phenomenal growth in recent years. Establishment of many private higher educational institutions has facilitated the growth. These institutions which offer different professional courses have together facilities to cater to the educational needs of an estimated 234 million people in the age group of 15-24. Indian higher education sector is one of the most promising sectors that offers a huge potential for the future. There are now about 19 million students enrolled in higher educational institutions in India. Stress is a term basically used in physical sciences, which means pressure of one object on another. There is a lack of extensive research on stress management of higher educational institutions. At the same time, there is an apparent lack of interest towards stress management among self-financing engineering institutions even today. Hence this study seeks to explore the stress management of teaching faculty in self-financing engineering institutions in Kanyakumari District of Tamil Nadu.

## II. STATEMENT OF THE PROBLEM

In the present social conditions the human capital is must for all sectors, because the human capital only can operate all resources. The study is related to stress management and stress is classified into two types namely positive stress and negative stress. Positive stress is useful to the people concerned and negative stress is harmful to the organization and the individual concerned. Stress is a normal part of life. Stress in small degrees is good. It can motivate and help produce more. However, too much of stress can harm mind and body. The teaching faculties of self-financing engineering institutions want to overcome the stress factors and they can succeed in their endeavour by understanding the impact of stress on them. The teaching faculty members face many problems in their institutions, homes and in personal lives, and such problems make them experience stress. Thus stress management of teaching faculty in self-financing engineering institutions assumes importance and so this study of stress management of teaching faculties in select engineering institutions in Kanyakumari District has been taken up.

## III. OBJECTIVES OF THE STUDY

- To present a sound analytical framework of attitude, job satisfaction, and job involvement for the study of stress management.
- To find out the extent of variation among the teaching faculty on their perception of the job-related factors with respect to stress management in self financing engineering institutions.
- To offer suitable suggestions to engineering college teaching staff in the district of Kanayakumari to keep off stress.

## IV. METHODS AND MATERIALS

### (i) Research design

Research design is the blueprint for descriptive research work that guides the researchers in a scientific way towards the achievement of the objectives. The research instrument used for this study was a self-administrated questionnaire that was circulated to teaching faculty respondents in the form of a survey, and the data collected in this way were the primary data for the analysis. In

this phase, based on the review of literature, different questions have been employed to study the stress management of teaching faculty in self-financing engineering institutions in Kanyakumari district.

#### (ii) Population of the study

The area of this study has a representation of teaching faculty of self – financing engineering institutions in Kanyakumari district. The following table represents the population of the study. Since 3323 teachers are employed in the above engineering institutions, it was found quite unwieldy to select certain percentage of the population as the sample frame. So six engineering institutions were selected from the 31 institutions on the basis of systematic random sampling. Thus six engineering institutions that is 1 by 5th were selected as sample engineering institutions for analyzing stress management.

#### (iii) Construction of the research instruments

The present study is descriptive in nature. To carry out this study, a survey questionnaire method was employed to collect relevant information from the teaching faculty respondents. This involved the collection of data that provided description of individuals, groups or situations. One of the instruments which the researcher used to collect data for the descriptive study was questionnaire. The teaching faculty survey questionnaires comprise only close-ended questions for the purpose of generating statistical data and they use mainly the five-point likert scale which indicated the stress management in self-financing engineering institutions in Kanyakumari District.

#### (iv) Pilot study and pre-testing of questionnaire

To determine the construct validity of the instrument, a pilot testing was conducted initially by administering the questionnaire on around 50 members of respondents. One hundred items were pre-tested for their clarity and relevance. The information on their stress was collected from the teaching faculty. The respondents were questioned on their issues relating to their demographic profile, regular working hours and impact of family pressures on their work, expectations from their work roles, to which extent they are satisfied by evaluating the individual initiatives and organization initiatives. This is a model of internal consistency, based on the average inter-item correlation. The results are presented in suitable hypothesis with relevant interpretations.

#### Reliability Coefficients

No. of Cases	=	50	No. of Items	=	70
Alpha	=	0.701 (i.e. 70.10%)			

#### (v) Data collection

The primary data were collected by visiting the self-financing engineering institutions. The researcher has adopted systematic random sampling method to select the colleges and convenient non-random sampling method to select the teaching faculty for this study. Self-administrated questionnaires were circulated in the form of a survey to respondents. Overall, 665 teaching faculty samples were chosen from across Kanya Kumari District. The respondents were aware that participation in this survey was voluntary in nature and their responses would remain confidential and used for research purpose only.

#### (vi) Data analysis

In this study, the researcher has adopted quantitative data analysis. Quantitative data analysis is the process of presenting and interpreting numerical data. Questionnaire method of data analysis can be of great value to the researchers who attempt to draw meaningful results from large body of qualitative data.

##### a. Chi-square Analysis

The Chi square test was used in this study on social science and management for testing the independence of two attributes. It was used to identify the factors influencing the job stress among the teaching faculty members in self-financing engineering institutions.

##### b. Discriminant Analysis

It is a statistical technique which allows the study of the differences between two or more groups with respect to several variables simultaneously and provides a means of classifying any object/individual into the group with which it/he is most closely associated and to infer the relative importance of each variable used to discriminate between different groups. It was used to identify discriminating variables between the groups on socio-economic factors of stress management.

## V. ANALYSIS AND INTERPRETATIONS

### a. Chi-square Analysis

The results are presented with suitable hypothesis and relevant interpretations. The study factor 'Signs and symptoms of stresses considered here.

**Hypothesis:** The coping ability factors have no significant influence on the opinion of the respondents about the signs and symptoms of stress

The Table 1.1 describes the results of chi-square analysis in terms of coping ability factors, chi-square values, p values and their significance on the signs and symptoms of stress.

It is found from the Table 1.1 that the hypothesis is rejected (Significant) in four cases and in other cases the hypothesis is accepted (Not Significant). It is concluded that the aspects like belonging to a social or activity groups, smoking, taking work home and drinking more than 8 cups of caffeinated drinks have significant influence on the stress management of teaching faculty analysis.

**Table 1.1: Chi Square values - Coping ability factors verses signs and symptoms of stress**

Coping ability factor	Chi-square Value	p values	Significant/ Not Significant
Supportive family/friends	2.698	0.260	NS
Hobby	4.159	0.125	NS
Belonging to a social or activity group	7.505	0.023	S
Practicing an active relaxation technique on a daily basis	0.651	0.722	NS
Do exercise for at least 20 minutes three times a week	4.825	0.090	NS
Something 'just for yourself' each week that really enjoyable	1.803	0.406	NS
Have somewhere to go in order to be alone	3.820	0.148	NS
Have attended stress management, relaxation, time management or assertiveness training course	3.489	0.175	NS
Showing Type B behavior	5.433	0.066	NS
Smoking	13.317	0.001	S
Drinking alcohol to relax	0.777	0.678	NS
Taking sleeping pills	2.760	0.252	NS
Taking work home	10.722	0.005	S
Drinking more than 8 cups of caffeinated drinks	7.518	0.023	S
Showing Type A behaviour	5.814	0.055	NS

S – Significant at 5% level (p value ≤ 0.05); NS – Not Significant at 5% level (p value > 0.05)

#### **b. Discriminant Analysis**

In the present study, the model is composed of a discriminant function (or, for more than two groups, a set of discriminant functions) based on linear combinations of the following factors with respect to the selected socio-economic factor (Marital status) and the level of signs and symptoms of stress.

The linear discriminant function is

$$D = 0.283A1 + 0.609A2 + 0.033A3 + 0.078A4 - 0.135A5 - 0.208A6 + 0.091A7 - 0.272A8 - 0.002A9 + 0.264A10 + 0.419A11 - 0.304A12 + 0.141A13 + 0.346A14 - 0.053A15 - 0.342A16 - 0.147A17 - 0.208A18 - 1.544$$

The following Table 1.2 and Table 1.3 show the group means of each of the independent variables identified and coefficients of canonical Discriminant function respectively.

**Table 1.2: Group means of marital status on the level of signs and symptoms of stress**

S.No	Level of signs and symptoms of stress	Mean value	
		Level of attitude with married	Level of attitude with unmarried
1	Easily irritated by people or trivial event (A1)	2.45	2.65
2	Felt impatient (A2)	2.42	2.77
3	Felt unable to cope (A3)	2.54	2.76

4	Felt a failure (A4)	2.84	2.96
5	Found it difficult to make decisions (A5)	2.89	2.95
6	Lost interest in other people (A6)	2.87	2.94
7	Felt had no one to confide in or to talk to about problems (A7)	1.93	2.14
8	Found it difficult to concentrate (A8)	2.80	2.94
9	Failed to finish tasks/jobs before moving on to the next, leaving jobs incomplete (A9)	2.72	2.84
10	Felt neglected in any way (A10)	2.72	3.00
11	Tried to do too many things at once (A11)	2.79	3.13
12	Felt anxious or depressed (A12)	2.95	3.12
13	Uncharacteristically aggressive (A13)	2.72	3.03
14	Felt bored (A14)	2.71	3.11
15	Changed patterns of drinking, smoking or eating (A15)	2.92	3.11
16	Changed level of sexual activity (A16)	2.59	2.45
17	Cried or had the desire to cry (A17)	2.66	2.51
18	Felt tired most of the time (A18)	3.45	3.33
<b>Eigen Value</b>		0.089	<b>% of Variance</b>
<b>Cumulative %</b>		100	<b>Canonical Correlation</b>
			100
			0.285

Source: Primary Data

The relative importance of each predictor variables in discriminating between the two groups is obtained and the results are presented below.

**Table 1.3: Relative Importance of Ratios in Discriminating between the Marital Status on the level of signs and symptoms of stress**

Level of signs and symptoms of stress	Importance of value of the variable (I <sub>j</sub> )	Relative Importance (R <sub>j</sub> )	Rank
Easily irritated by people or trivial event (A1)	0.06	6	4
Felt impatient (A2)	0.21	21	1
Felt unable to cope (A3)	0.01	1	9
Felt a failure (A4)	0.01	1	9
Found it difficult to make decisions (A5)	0.01	1	9
Lost interest in other people (A6)	0.02	2	8
Felt had no one to confide in or to talk to about problems (A7)	0.02	2	8
Found it difficult to concentrate (A8)	0.04	4	6
Failed to finish tasks/jobs before moving on to the next, leaving jobs incomplete (A9)	0	0	
Felt neglected in any way (A10)	0.07	7	3
Tried to do too many things at once (A11)	0.14	14	2
Felt anxious or depressed (A12)	0.05	5	5
Uncharacteristically aggressive (A13)	0.04	4	6
Felt bored (A14)	0.14	14	2
Changed patterns of drinking, smoking or eating (A15)	0.01	1	9
Changed level of sexual activity (A16)	0.05	5	5
Cried or had the desire to cry (A17)	0.02	2	8
Felt tired most of the time (A18)	0.03	3	7

Source: Primary Data

Among the variables under study one variable namely Felt impatient (A2) is substantially important variables in discriminating between groups namely 'Level of attitude with Married' and 'Level of attitude with UnMarried' on the stress management of teaching faculty. The present condition of the teaching faculty is conducive and it helps enrich the coping behaviour of teaching faculty and enhance to uplift the engineering institutions and teaching faculty together to conquer the sky. If all the suggestions are properly carried out by the teaching faculty and the engineering institutions then the stress level of the teaching faculty will definitely come down which may result in organizational growth and will create a healthy organizational climate.

## VI. CONCLUSION

The present condition of the teaching faculty is conducive and it helps enrich the coping behaviour of teaching faculty and enhance to uplift the engineering institutions and teaching faculty together to conquer the sky. If all the suggestions are properly carried out by the teaching faculty and the engineering institutions then the stress level of the teaching faculty will definitely come down which may result in organizational growth and will create a healthy organizational climate.

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