



Professional Stress and Coping Attitudes of Engineering College Teachers

KEYWORDS

Private engineering college, Professional stress, Engineering teacher

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ABSTRACT *Stress is considered to be an important problem among teachers. Teachers working in the private Engineering Colleges perform their jobs in various environments. Therefore the psychological problems of teachers caused by work conditions, their perception of work environment and how they cope with these problems differ. The purpose of this research is to determine the stress of private Engineering College teachers caused by the works done in two different environments (shops and classrooms) and the behaviors shown to cope with this stress. The research includes 138 teachers instructing their theory courses in classrooms and 87 teachers instructing practical courses in labs and workshops. A survey is constructed to collect data. The survey is formed in three sections. In the first section there are questions concerning the demographic data, in the second section there are questions concerning the psychological stress indications and in the third section there are questions concerning the behaviors coping with the stress. The data collected is analysed by using frequency, percent average, standard deviation, t-Test and analysis of variance. The data obtained from the research is analysed and evaluated. The ways that could decrease the stress of teachers are proposed.*

1.0 INTRODUCTION

Teachers have very important roles and responsibilities in teaching-learning process in the college. Also effectiveness of other elements of education system mostly depends on the teacher. As it is impossible to think that a teacher who is insufficient and inefficient to fulfill purpose of education even in the best conditions, it should not be expected from even the best teacher to become efficient under non-convenient conditions. (1) However, the teacher has duties with vital effects over students like motivating students, planning class activities, providing knowledge and skills for students, getting class under discipline, guiding to students. Occupation field of the teacher is human being. Teachers execute their works in their working environments under discipline and order problems, problems concerning their relations with college administration and their colleagues, insufficiencies in their working environment, overcrowded classes, lack of material opportunities, meeting with unexpected situations, lack of professional development, and vagueness of teacher's role (2,3,4,5). As a matter of fact, the job that person possesses determines his or her social status, satisfaction from life, opportunities he or she provides to his family. Professional life forms the most important part of daily life of human being and effects in the professional life expand to the most important part of his or her life. So, humans are affected from stress resources in professional life in various forms (6). Teachers too are affected from stress resources due to necessity of their job. Perception by the teacher that fulfillment of whole requirements of profession is hard and impossible and consideration that non-completion of whole requirements of profession is a risk towards self respect and general integrity are stages of occurring of teacher's stress (7,5). Realisation of teaching purposes requires teacher to work in healthy environment without stress. However, teaching is a stressful profession. During stress, humans are affected in various forms in psychological and physiological viewpoints. Therefore, humans who are under stress show different reactions. These come forth as anxiety, hate, aggressiveness, perception disorders, learning insufficiencies, over-

eating, sweating, etc. These psychological and physical effects break interior balance and harmony of human being (8,9). Stress level changes according to perception form by teacher as for environment where he or she realizes his or her profession. If teacher's stress turns to cause harm to himself or herself in psychological and physiological viewpoints, realization of profession by that teacher is prevented. In this case, teacher cannot realize teaching activities sufficiently. Students get most harm from this. Therefore, teacher's stress holds special significance. It is necessary to manage stress well in order to decrease stress of teachers and to support them to be affected less.

2.0 REVIEW OF LITERATURE

In the research conducted by Pehlivan (10) concerning stress resources in education management, it was established that grave physical stress indicators are not observed and behavioural stress indicators among teachers are found as little. Saylan and Yurdakul (11) established in their research concerning strategies implemented to cope with stress and professional stress level of teachers that teachers manipulated emotional strategies rather than physical strategies and have no organizational strategies employed often to decrease stress situation. Balei (12) also stated in research concerning job stress of university teaching staff that there is no meaningful difference in findings of coping with stress according to variants of gender, age, faculty and title while stress level is under medium. In the research conducted by Shea (13) it was put forth that teachers who get support from experienced parents of students and colleagues show lighter stress reactions. Aldwin and Revensan (14) and Hipps and Halpin stated that teachers are affected and have stress more than directors from conditions of college and human relations and have more tendency for quitting job as they are directly related with teaching and their constant togetherness with students.

3.0 PURPOSE

Purpose of this research is to determine psychological and physiological indicators of stress of teachers caused by

their jobs in different environments (in labs or work-shops and classes) in private Engineering Colleges as well as coping behaviours against these according to their own views. With this purpose, answers were sought for the following questions.

What are psychological and physical indicators of teachers caused by job stress and their coping experiences according to their own views?

Does job stress differ according to gender, age, working environment, marital status and weekly load of class hour in forming views concerning stress indicators and coping experience?

4.0 METHODOLOGY

In this research, scanning model is employed. In the study, 225 teachers who are employed in the private Engineering Colleges located in and around Chennai, Tamilnadu are within research scope. A survey is developed by the researcher in order to collect research data. With this purpose, firstly literature concerning the subject is scanned, views of experts were extracted and a draft survey was prepared in line with the obtained theoretical information. This survey was implemented to a group of teachers who are outside the established study group and its results were studied and final shape was given to survey by realizing necessary corrections. Cronbach Alpha interior consistency coefficient of survey is defined as $r = .79$. Survey is formed by three chapters. It consists of 8 propositions in first chapter where personal information exists, 21 propositions in the second chapter where propositions caused by concerning physical and psychological indicators caused by stress; 19 propositions in the third chapter where propositions concerning techniques to cope with stress exist. Arranged survey was implemented with 225 teachers who are selected by random method. By taking into consideration that answers to be given in the second and third chapters of survey change between 1.00-3.00 and cross-sections of 0.66 ($3-1 = 2/3 = 0.66$) occur in the used scale, marks were evaluated as none for 1.00-1.66; sometimes for 1.67-2.33; always for 2.34-3.00. Findings which were extracted with data collection tools were analyzed by SPSS statistical packet program. Frequency and percentage values of data were calculated, "t" test was employed in dual comparisons concerning parametric data and variance analysis was employed in multiple comparisons. Arithmetical mean and standard deviation of data were calculated. .05 error rates was obtained in relations and differences among all groups

5.0 FINDINGS

5.1 Information concerning the first section

Totally, 225 teachers participated in the research. While 35.1 % of this total was formed by female teachers, 64.9 % of it was male teachers (Table 1).

Table-1: The Sample According To Their Gender

Gender	f	%
Male	146	64.9
Female	79	35.1
Total	225	100

Table - 2 shows the age of respondent teachers. Biggest portion of teachers is found in the age group of 26-30. (28.4 %) This age group of teachers was followed by the age group of 31-35 (21.8 %); by the age group of 41 and over (18.2 %); by the age group of 36-40 (16.4 %) and by

the age group of 21-25 (15.1 %).

Table -2: Distributions of the Sample Ages

Age	f	%
21-25	34	15.1
26-30	64	28.4
31-35	49	21.8
36-40	37	16.4
41 -45	28	12.4
46-Over	13	5.8
Total	225	100

Teachers from two separate branches participated in the research. Biggest portion (61.3 %) among teachers is formed by teachers instructing their theory courses in classrooms. However, teachers instructing practical courses in labs and workshops (38.7 %) are in less proportion (Table-3).

Table-3: Distribution of Sampling According To Branch

Branch	f	%
Labs and Work-shop Instruction	87	38.7
Classroom Teaching	138	61.3
Total	225	100

As distributions (Table-4) of teachers according to environments where they mostly do lessons are also studied, as it was seen it is fixed that the majority of them (57.8 %) conduct lessons in classroom environment and some lessons (42.8 %) are realized in labs and work-shop environment.

Table-4: Distribution of Sampling According to Environment of Class Work

Environment	f	%
Labs and Work-shop	130	57.8
Classroom	95	42.8
Total	225	100

As teachers are studied in regard with weekly lesson intensity, highest concentration is in the 31-over hours (45.8 %). This was followed by those with 21-30 hours of weekly lesson hours of weekly intensity lesson hours (44.9 %). Of teachers, 7.6 % have 10-20 hours, 1.8 % has less than 10 hours (Table-5) when it is considered that average load of weekly lesson hours of teachers is 18 hours, it can be stated that teachers face with very intensive lesson load.

Table-5: Weekly Lesson Hours Load of Teachers

Weekly Lesson Load	f	%
Less than 10 lesson hours	4	1.8
10-20 Lesson Hours	17	7.6
21-30 Lesson Hours	101	44.9
31-Over	103	45.8
Total	225	100

As it will be seen when distribution (Table-6) of views of teachers concerning their knowledge about subject of coping with job stress, majority (63.1 %) of teachers try to recover from stress according to their views. It was determined that, of those teachers, 26.2 % state that they have knowledge about stress by reading books, 5.3 % get informed by joining with meetings like seminar and panel, and 5.3 % have no knowledge about this subject.

Table-6: Knowledge of sampling concerning subject of coping with stress

Stress coping knowledge	f	%
Action according to their own views	142	63.1
By Reading Books	59	26.2
Joining With Seminar and Panel	12	5.3
No Knowledge	12	5.3
Total	225	100

Table-7: Distribution of sampling according state of being affected from working environment

Being Affected By Working Environment	f	%
None	9	4.0
Sometimes	154	68.4
Always	62	27.6
Total	225	100

Of teachers, 68.4 % state that they sometimes get affected from working environment, 27.6 % always get affected, 4.0 % never get affected. (Table-7)

5.2 Knowledge Concerning Stress Indicators of Teachers

Stress Indicators formed by job stress of teachers are studied according to frequency degree of meeting (Table-8).

Table-8: Distribution of Stress Indicators of Teachers According to their Frequency Levels

Stress Indicators	None (1)		Sometimes (2)		Always (3)		X	SS
	f	%	f	%	f	%		
1.Head and back ache	42	18.7	157	69.8	26	11.6	1.93	0.55
2.Nervousness, sudden rage	28	12.4	172	76.4	25	11.1	1.99	0.49
3.Insomnia, over-sleep, sleeping disorder	101	44.9	95	42.2	29	12.9	1.68	0.69
4.Sweating, stomach nauseate	160	71.1	62	27.6	3	1.3	1.30	0.49
5.Anorexia	143	63.6	75	33.3	7	3.1	1.40	0.55
6.Tiredness	14	6.2	127	56.4	84	37.3	2.31	0.58
7.Tense muscles	123	54.7	85	37.8	17	7.6	1.53	0.63
8.Over-appetite, stomach disorders	113	50.2	84	37.3	28	12.4	1.62	0.70
9.Rapid Heartbeat	128	56.9	88	39.1	9	4.0	1.47	0.58
10.Calcination, muscle disorders	158	70.2	52	23.1	15	6.7	1.36	0.61
11.Pale face	108	48.0	109	48.9	8	3.6	1.56	0.57
12.Incompatibleness	130	57.8	87	38.7	8	3.6	1.46	0.57
13.Drop in working performance, unwillingness	47	20.9	159	70.7	19	8.4	1.88	0.53
14.Unlogical behaviours	148	65.8	75	33.3	12	5.3	1.35	0.50
15.Constant anxiety, panic	126	56.0	87	38.7	12	5.3	1.49	0.60
16.Complaint for everything	106	47.1	114	50.7	5	2.2	1.55	0.54
17.Feeling self-insufficiency, lack of boldness	130	57.8	91	40.4	4	1.8	1.44	0.53
18.Absent from job	182	80.9	41	18.2	2	0.9	1.20	0.48
19.Boredness, unwillingness in social relations	86	38.2	126	56.0	13	5.8	1.68	0.58
20.Lung and skin disorders	189	84.0	28	12.4	8	3.6	1.20	0.48
21.Depression	176	78.2	40	17.8	9	4.0	1.26	0.52

Teachers (averages under X: 1.66) do not exhibit grave physiological reactions because of stress like depression, lungs and skin disorders, stomach disorders, sweating, cakinations, muscle disorders, heart and berating problems. They also show almost no lighter physiological reactions which occur as feeling helplessness, lack of boldness, feeling self-insufficiency, complaining from everything, incompatibility, lack of appetite. Stress reactions (averages between x: 1.67-2.33) which teachers oeeasionaly endure are tiredness and also head and back aches, nervousness, drop in working performance, unwillingness, broadness, insufficiency in social relations, sleeping disorders which are stated as occurring occasionally as stress reactions of teachers. Teachers have no indicator that they show these all the time as stress reaction. As obtained findings are tak-

en into consideration, physical and psychological reactions of teachers are not constant; their occurrence from time to time is an indicator that teachers have tolerant and patient structure due to their profession.

5.3 Findings concerning coping

Strategies of teachers against stress activities conducted by teachers to recover from stress are studied according to frequency level (Table-9). It was determined that strategies as blaming others, using sedative drugs, drinking alcohol, distancing from everything, using relaxing techniques were almost never used by teachers to cope with stress. They were observed to employ other coping strategies occurring in the Table 9 occasionally.

Table-9: Coping strategies of teachers against stress

Coping strategies against stress	None (1)		Sometimes (2)		Always (3)		X	SS
	f	%	f	%	f	%		
1.Self-confedence to remove stress	21	9.3	111	49.3	93	41.3	2.32	0.64
2.To forget stress factor	32	14.2	132	58.7	61	27.1	2.13	0.63
3.Sports	75	33.3	108	48.0	42	18.7	1.85	0.71
4.Decrease work load	69	30.7	130	57.8	26	11.6	1.81	0.62
5.Engage in hobby	46	20.4	116	51.6	63	28.0	2.08	0.69
6.Follow cultural, social activities	25	11.1	133	59.1	67	29.8	2.19	0.61
7.Speak with friends on stress factor	21	9.3	118	52.4	86	38.2	2.29	0.63
8.Make prayers	68	30.2	103	45.8	54	24.0	1.94	0.74
9.Raise problems to superiors	55	24.4	144	64.0	26	11.6	1.87	0.59
10.Blame others	140	62.2	82	36.4	3	1.3	1.39	0.52
11.Distance from everything	143	63.6	75	33.3	7	3.1	1.40	0.55
12.Change working environment	72	32.0	140	62.2	13	5.8	1.74	0.56
13.Stay by oneself	46	20.4	156	69.3	23	10.2	1.90	0.55
14.Smoke cigarettes	126	56.0	36	16.0	63	28.0	1.72	0.87
15.To benefit from relaxing techniques	102	45.3	106	47.1	17	7.6	1.62	0.62
16.To read interesting books	77	34.2	114	50.7	34	15.1	1.81	0.68
17.To use sedative drugs	196	87.1	26	11.6	3	1.3	1.14	0.39
18.To drink more tea, coffee, etc.	61	27.1	95	42.2	69	30.7	1.72	0.52
19.To drink alcohol	160	71.1	58	25.8	7	3.1	1.20	0.40

It was fixed that among these, mostly self-confidence to overcome the stress factor, speaking on stress factor with friends, not to think the stress creating situation, engaging in a hobby and making prayers were applied more than others. A meaningful difference was not found in the level of $p < 0.05$ in regard with stress indicators and coping strategies of teachers according to variants like gender, age, weekly lesson load, environment where lesson is conducted.

6.0 CONCLUSION AND PROPOSITIONS

It was fixed that teachers rather showed very light physical and psychological stress indicators, these indicators did not show continuity, they sometimes occurred in this study which was conducted in order to determine stress indicators concerning job stresses of teachers and coping strategies against stress as well as their usage frequency. it was determined that teachers do not have continually used stress coping strategies and they try to decrease their stresses by using various coping ways which are rather de-

veloped by themselves. It was fixed that teachers do not differ according to variants as gender, age, working environment, weekly lesson load in regard with stress indicators and coping techniques. In order to decrease stresses of teachers within obtained results, it is recommendable to improve their working conditions, decrease their weekly lesson loads to get them work more efficiently, to promote sports activities, to integrate them in social and cultural activities and to improve their financial opportunities. Researches concerning these subjects must be conducted in schools. While opportunities of schools are improved and they are equipped with new technologies, on the other hand, interrupting aspects of education (15) and stress resources must be fixed. As teachers fulfill their jobs under especially very complicated structures of schools and various factors, they must be informed on this subject by organizing conferences, seminars, etc. to decrease stress may be caused by them.

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