Chapter I
A STUDY ON STRESS AMONG TEACHERS
OF SELF-FINANCING ENGINEERING INSTITUTIONS

1.1 INTRODUCTION

Education is that constructive process which drags a person out from darkness, poverty and misery and leads him on the polls of enlightenment, prosperity and happiness by developing his individuality in all its aspects i.e. physical, mental, emotional and social. Technical education covers courses and programmes in engineering, technology, management, architecture, town planning, pharmacy, applied arts and crafts, hotel management and catering technology. Engineering is the discipline, skill, and profession of acquiring and applying scientific, economic, social, and practical knowledge, in order to design and build structures, machines, devices, systems, materials and processes. The technical education system in India can be broadly classified into three categories viz., Central Government funded institutions, State Government/State-funded institutions and Self-financed institutions. In India, the technical education sector is regulated by the Government of India through All-India Council for Technical Education (AICTE) and University Grants Commission (UGC). Further, in the state of Tamilnadu, the activities of technical education institutions especially engineering institutions are monitored and controlled by the Directorate of Technical Education (DoTE) and Anna University.

Teacher is considered as a core stone of successful education system. In higher education, pressure is mounting from the general public, management as well as from state and central government, to increase productivity and efficiency. A teacher who is satisfied with his job can perform his duties efficiently and effectively and has a positive attitude towards teaching, but if he is under stress then he cannot work effectively and has a negative attitude towards his job. High levels of prolonged stress are harmful to the health and well-being of individual teachers, their students, and the functioning of entire college. In educational settings, increased workload, longer working hours, and low salary all contribute to high levels of employee stress that may lead to absences due to stress-related illness, impairment of co-worker relationships, and feelings of hopelessness or disillusionment (Hansen and Sullivan, 2003).
1.2 ENGINEERING EDUCATION IN INDIA

Indian higher education system is one of the largest in the world. Education in India is provided by the public sector as well as the private sector, with control and funding coming from three levels: federal, state, and local. Most universities in India are controlled by the Union or the State Government. University level institutions comprise Institutions of National importance, State Universities, Deemed-to-be-Universities with government funds, Deemed Universities without government funds or self-financing or private universities. There were only 20 universities and 500 colleges with 0.1 million students at the time India attained independence. This has increased to 611 universities and university-level institutions and 31,324 colleges as on August 2011\(^2\). So far as the number of Universities in states is concerned, the state of Tamil Nadu tops the list with 53 Universities, followed by Uttar Pradesh (44), Maharashtra (41), Andhra Pradesh (39) etc., that there is uneven establishment of Universities in States\(^3\). With regard to deemed universities in India total of 130 as on August 2011, Tamilnadu tops the list with 29 deemed universities, followed by Maharashtra (21), Karnataka (15) etc.,\(^4\).

All India Council for Technical Education (AICTE) is a statutory professional council, which is responsible for recognition of courses, promotion of professional institutions and providing grants to undergraduate programmes and various awards. It was set-up in November 1945. It ensures coordinated, integrated development and management of technical education in the country\(^5\). The University Grant Commission (UGC) was formally established in November 1956 as a statutory body of the Government of India through an Act of Parliament for the coordination, determination and maintenance of standards of university education in India. Central Government provides grants to UGC and establishes central universities in the country. Deemed university is a status of autonomy granted to high performing institutes and departments of various universities in India. This status of "Deemed-to-be-University", is granted by Department of Higher Education, Union Human Resource Development Ministry, on the advice of the UGC, under Section 3 of the UGC Act, 1956. National Board of Accreditation (NBA) is an autonomous body established by the AICTE. It is the only authorized body in the country entrusted with the task of undertaking accreditation of technical education programmes. The Directorate of Technical Education (DoTE) is a
sub-department of Department of Higher Education, Chennai, Tamilnadu. The matters relating to engineering colleges, lateral entry admissions to engineering colleges, sanction of grants to Anna University and transfer of students from one engineering college to another are the main activities of DoTE$^6$.

Colleges and other institutes in turn, are expected to be regulated by the Universities with which they are affiliated or associated. Anna University was established in Tamil Nadu on September 4, 1978 as a unitary type of university. It offers higher education in Engineering, Technology and allied Sciences relevant to the current and projected needs of the society. It has become a large and highly renowned affiliated university, having brought into its fold about 551 Engineering Colleges (17 constituent colleges of Anna University, six Government colleges and three Government-aided engineering colleges and 525 Self-financing engineering colleges,) located in various parts of Tamil Nadu State$^7$. The role of private sector in engineering colleges of Tamil Nadu occupy three fourth’s share of the total engineering colleges in the State.

In Tamil Nadu, the total number of self-financing engineering colleges has been increased to 525 in 2012-13 compared to the previous year 485 in 2011-12, 464 in 2010-11, 431 in 2009-10 and 335 in 2008-09. The number of deemed universities has also increased to 29 in 2012-13, from 18 in 2008-09$^8$. The faculty student ratio as per the norms of regulatory bodies is 1:15. The faculty members in 2008-09 was 9076 and it has risen to 17,736 in 2012-13.

1.3 TEACHER STRESS IN ENGINEERING EDUCATION

Stress is a word that everyone avoids but it cannot be. Everyone has some stress with varying degree. The word ‘stress’ is defined as the state of psychological disequilibrium in the human being caused by conflicts, frustrations, internal as well as external strains and pressures. The modern era is considered as the age of stress. An organisation become more complex, the potential for and the amount of stress will also increase.

The word stress is derived from the Latin word “stringere” which means “to be drawn tight”. The term stress as is currently used was coined by Hans Seyle (1936), one of the founding fathers of stress research, is defined as “the non-specific response of the body to any demand for change.” It is the body’s reaction to a change that requires a
physical, mental or emotional adjustment or response. His view in 1956 was that “stress is not necessarily something bad – it all depends on how you take it. The stress of exhilarating, creative successful work is beneficial, while that of failure, humiliation or infection is detrimental.” He believed that the biochemical effects of stress would be experienced irrespective of whether the situation was positive or negative. Since then, a great deal of further research has been conducted, and ideas have moved on. Stress is now viewed as a "bad thing", with a range of harmful bio-chemical and long-term effects. These effects have rarely been observed in positive situations. Stress is a term used to designate a wide range of human responses to various extreme effects. Usually stress is thought of in negative terms. It is thought to be caused by something bad. This form is a form of distress. But, there is also a positive and pleasant side of stress caused by good things, for example, an employee is offered a job promotion at another place.

According to Lazarus (1966), stress is a condition or feeling experienced when a person perceives that demands exceed the personal and social resources the individual is able to mobilize. Stress is a subjective feeling or tension experienced in the physical, mental and/or emotional realms as a response to environmental events that are perceived as threatening (Sarh Basu, 2009). Stress is a disruption of the emotional stability of the individual that induces a state of disorganisation in personality and behaviour (Felicia and Mon, 2006). Hinton and Rotheiler (1998) point out that the excitement and challenge of teaching naturally causes the raised adrenaline levels associated with stress, while Dunham (1992) illustrates that teachers work at peak efficiency when the demands placed on them are in balance with their own perceived coping ability, and that too little challenge and too much can be equally detrimental.

There are three major components of stress come together to produce the distressing experiences. i) Stressor - an event or series of events that occur in the work environment. For example, a group of loud and disruptive students, or rude and disparaging parents, are stressors that researchers may encounter. ii) Stress encompasses the psychological and physiological effects of the stressor on the person. These effects are referred to as strain and are what people usually mean when they use the word stress. iii) Appraisal - influence how a person reacts to a stressor since not all stressors inevitably lead to strain, or to the same level of strain, in every person. It involves
judgments about the degree of threat a stressor presents and an evaluation of whether sufficient resources are available to cope with the stressor. Work stress can be addressed by removing or changing stressors, reducing or treating the symptoms of strain, modifying appraisals, or a combination of these.

High levels of prolonged stress are harmful to the health and well-being of individual teachers, their students, and the functioning of entire college. The assessment of stress among teachers in technical educational institutions is particularly important. It is hard to imagine that any technical institutions characterized by these features would be a good place to work or attend as a student, much less that it would be reaching its potential as an educational institution. High stress can cause teachers to leave the profession.

1.4 STATEMENT OF THE PROBLEM

Mushroom growth of engineering colleges over the last decade propelled by the highly speculative requirements at the national and global levels has resulted in severe degradation of quality education. Research evidence on occupational stress suggests that teaching is among one of the most stressful occupations (Boyle et al. 1995; Hui and Chan, 1996; Doune, 1999; Shonfeld, 2001). As far as the social welfare occupations are concerned, it has been claimed that in fact, teachers experience the highest levels of stress (Travers and Cooper, 1993). Research of occupational stress in higher education has focused largely upon stressors related to workplace factors (Gmelch et al., 1984; Richard and Krieshok, 1989; Olsen, 1993; Smith et al., 1995) and personal factors (Smith and Witt, 1993; Dey et al., 1993). Dey’s work and other alert researchers need to examine the issue by sub-populations rather than treating faculty as a homogeneous population.

The proliferation of stories and works regarding occupational stress has greatly gained the attention of the researchers. Immense amount of work regarding occupational stress is done in corporate world issues, concerning to, low productivity, job satisfaction, high absenteeism, high turnover rate and physical and psychological disorders, yet, very less studies were conducted regarding stress in academe. The reason of less studies of faculty stress lies in perception that teaching is generally a low stress job as compared to corporate world. But research conducted by Johnson et al. (2006) in USA has revealed
teaching as one of the most stressful occupation out of 26 other occupations. The investigation conducted by Xing and Shao (2009) on college teachers of 72 colleges in China revealed that 95 per cent of the teachers have mental pressure, and 36 per cent of the teachers feel high mental pressure. Some studies show that fifty per cent of teachers want to change job. Kyriacou and Sutcliffe (1978) have defined teachers' stress as a response syndrome of negative effects arising from aspects of the teacher's job and mediated by the perception that the demands made upon the teacher constitute a threat to his self-esteem or well-being and by coping mechanisms activated to reduce the perceived threat. Once the types, sources and levels of stress are assessed, action can be taken to reduce and prevent the physical, psychological, and organisational toll stress takes.

A teacher who is satisfied with his job can perform his duties efficiently and effectively and has a positive attitude towards teaching, but if he is under stress then he cannot work effectively and has a negative attitude towards his job. Many researches related to stress have been studied with reference to teachers working in primary schools, higher secondary schools and arts colleges. Whereas, only a very few studies have been conducted in the areas of stress among engineering teachers in deemed universities and self-financing engineering colleges. Therefore, it’s very important to establish effective management mechanism in order to relieve mental pressure of college teachers. This study explores the causes of stress in teachers, stress level, its effects and suggests the ways to cope with stress. It has been carried out to identify the further reasons that are initially hidden to the previous researchers. In order to understand the consequences of stress and to be able to cope effectively, it is of considerable interest to know: i) Whether the work culture in engineering educational institutions leads to stress among teachers? ii) What is the level of stress among the teachers? iii) What are the effects of stress? and iv) What coping mechanism can be followed by the teachers and adopted by the organisation to reduce the stress?

1.5 OBJECTIVES OF THE STUDY

A systematic study of stress among the teachers of Self-financing Engineering Institutions (SFEI) in the Indian context is to be studied to find answers to the questions raised and the present study is conducted with the following objectives:
i) To identify the causes of stress among the teachers of self-financing engineering institutions.

ii) To study the level of stress among them.

iii) To analyse the effect of stress and

iv) To ascertain the stress coping mechanism taken by the teachers and institutions to mitigate the stress.

1.6 METHODOLOGY

The data required for the study is primary in nature. It is collected through a well-framed questionnaire. A pilot study was conducted with 25 faculty members who belong to engineering institutions. Based on the feedbacks and discussions with the academic experts, the questionnaire was restructured.

1.7 SAMPLING

Teachers working in six self-financing autonomous engineering and technology colleges, 52 self-financing non-autonomous engineering and technology colleges and four deemed universities in the Coimbatore district constitute the population for the study. Totally 600 questionnaires were distributed among the teachers by employing convenience sampling method. Only 510 questionnaires were returned by the respondents. It was found that only 478 questionnaires were complete in all aspects which are considered for the study. The data was collected during the academic year 2011-12. Coimbatore district is chosen as the study area since a large number of engineering colleges are functioning in the district.

1.8 FRAMEWORK OF ANALYSIS

To identify whether there is significant mean difference between two groups and more than two groups ‘t’ test and Analysis of Variance (ANOVA) were applied respectively. In order to identify the association between variables, Chi-square test was conducted. In order to examine the nature and quantum of association of variables with stress, correlation analysis and partial correlation coefficients were employed. Multiple regression analysis and step-wise regression were used to find out the variables that influence the level of stress and prominently associated with stress respectively.
1.9 SCOPE AND SIGNIFICANCE OF THE STUDY

The present study explores the specific causes, levels and effects of stress experienced by teachers who work in self-financing engineering institutions. This study also investigates the coping strategies adopted by these teachers in an effort to overcome stress and the coping strategies resorted by the organisation in an effort to reduce their teachers stress. The findings of the study may be useful to faculty members, students, regulatory bodies and the public in general. The present study has important implications for the teachers in engineering education and for the educational institutions for improving the effectiveness, efficiency and the quality of education. The findings may serve as a useful step to formulate appropriate measures to deal with faculty stress. Further, the findings may assist the regulatory bodies of technical education and managements to develop and improve teacher’s performance, and prevent the on-set of burnout. Stress management or coping mechanisms may be taken as an input in teacher education programs.

1.10 LIMITATIONS OF THE STUDY

The data being primary in nature, limitations applicable to primary data are applicable to the present study also. The sample is limited to self-financing engineering colleges and deemed universities. This study is confined to Coimbatore district and hence utmost care should be taken while generalizing the results. The study is limited to job related variables that affect stress.

1.11 CHAPTER SCHEME

The study is presented in seven chapters.

- First chapter brings about the introduction and theme of the study.
- Second chapter provides a review of literature related to study.
- Third chapter gives the research methodology of the study.
- Fourth chapter explains the causes of stress among teachers of self-financing engineering institutions and ascertains the association between demographic and job profile variables with causes of stress.
• Fifth chapter analyses the level of stress. Further, association among demographic and job profile variables with level of stress is also discussed in this chapter.

• Sixth chapter explains the effect of stress and the coping mechanism followed by the teachers and the institutions.

• The seventh and final chapter portrays the summary of findings, suggestions and conclusion.
References:


2. Inclusive and Qualitative Expansion of higher education, 12th Five-Year Plan, 2012-17, UGC.

3. UGC Annual Report 2011, p. 44.


5. Annual Report 2009-2010, AICTE.

