Chapter VII
SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

7.1 INTRODUCTION

Teachers stress engaged in higher education is becoming one of the major issues around the world. Compared to corporate sector work stress in educational institutions is considered to be lower. With the recent developments such as increased competition, high rate of return etc. at the higher education in India, educational institutions attract great deal of attention. A teacher, who is not satisfied and under stress, 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. However, 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 engineering college teachers. It has been carried out to identify further reasons that are initially hidden to the previous researches. 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?.

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.

The data required for the study is primary in nature. It is collected through a well framed questionnaire. 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. Coimbatore district is chosen as the study area since large number
engineeering colleges are functioning in the district. 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.

In order to find out the teachers’ agreeability on causes of stress and level of stress, 10 demographic profile independent variables and 11 job profile independent variables have been identified. The collected data were analysed using ANOVA and Chi-square test to find out the significant difference and association between the dependent and independent variables respectively. Correlation, partial correlation coefficients, multiple regression and step-wise regression were employed to know the determinants of stress. In order to identify the association among level of stress with effects and coping of stress, Chi-square test was employed. The study may yields significant results for the policy makers and stakeholders of higher educational Institutions. Findings and suggestions are presented in this chapter.

7.2 FINDINGS OF THE STUDY

The findings of the study are presented under sub-heads namely i) Causes of stress, ii) Level of stress, iii) Effects of stress and iv) Coping of stress.

7.2.1 Causes of Stress

Causes of stress has been measured by giving scores to stress related sixty three questions. On the basis of the scores an index namely agreeabiliy index is computed. Anova and Chi-square test reveal the following:

i) There is no significant difference in agreeabiliy index of the teachers residing in different areas. There is no association between area of residence and level of agreeabiliy.

ii) There is significant difference in agreeabiliy index of teachers classified on the basis of gender. There exists significant association between gender and level of agreeabiliy. The percentage of teachers with high level of agreeabiliy is high with male teachers.
iii) There is no difference in agreeability index of the teachers belonging to different age groups. There is no association between age and level of agreeability.

iv) There is no difference in agreeability index of the teachers classified on marital status. There is no association between marital status and level of agreeability.

v) There is no difference in agreeability index of the teachers grouped on the basis of different level of educational qualification. There is no association between educational qualification and level of agreeability.

vi) There is no difference in agreeability index on causes of stress among the teachers classified on type of family. There is no association between type of family and level of agreeability.

vii) There is no difference in agreeability index of the teachers classified on status in the family. There is no association between status in the family and level of agreeability.

viii) There is no difference in agreeability index of the teachers grouped on the basis of number of family members. There is no association between number of family members and level of agreeability.

ix) There is no difference in agreeability index of the teachers grouped on the basis of monthly income. There is no association between monthly income and level of agreeability.

x) There is no difference in agreeability index of the teachers grouped on the basis of family income. There is no association between family income and level of agreeability.

xi) There is significant difference in agreeability index of the teachers grouped on the basis of type of institution they work. There exists significant association between type of institution and level of agreeability. The percentage of teachers with high level of agreeability is high with teachers, who belong to non-autonomous institutions.
xii) There is no difference in agreeability index of the teachers classified on nature of college they belong to. There is no association between nature of college and level of agreeability.

xiii) There is significant difference in agreeability index of the teachers grouped on the basis of location of the college. There is significant association between location of college and level of agreeability. The percentage of teachers with high level of agreeability is high with teachers who belong to the institutions which are located at semi-urban areas.

xiv) There is no significant difference in agreeability index of the teachers classified on teaching experience. There is no association between teaching experience and level of agreeability.

xv) There is no significant difference in agreeability index of the teachers grouped on the basis of their present designation. There is no association between present designation and level of agreeability.

xvi) There is no significant difference in agreeability index of the teachers grouped on the basis of subject of specialisation. There is no association between subject of specialisation and level of agreeability.

xvii) There is significant difference in agreeability index of teachers based on current working status. There exists significant association between current working status and level of agreeability. The percentage of teachers with high level of agreeability is high with teachers who are working on temporary basis.

xviii) There is no significant difference in agreeability index of the teachers grouped on number of administrative responsibilities. There is no significant association between administrative responsibilities and level of agreeability.

xix) There is no significant difference in agreeability index of the teachers with respect to location of residence. There is no association between location of residence and level of agreeability.

xx) There is significant difference in agreeability index of the teachers with regard to working hours. However, there is no association between college timing and level of agreeability.
xxi) There is no significant difference in agreeability index of the teachers with regard to average number of teaching hours per week. However, it is observed that there exists significant association between average number of teaching hours and level of agreeability.

Thus, it is observed that there is significant difference in agreeability index of the teachers classified on the basis of gender, type of institution, location of the college, current working status and working hours. There is significant association between level of agreeability and factors such as gender, type of institution, location of the college, current working status and average number of teaching hours.

7.2.2 Level of Stress

Level of stress has been measured by giving scores to stress related twenty one questions. On the basis of the scores an index namely stress index is computed. Anova and Chi-square test reveal the following:

i) There is no significant difference in stress index of the teachers residing in different areas. There is no association between area of residence and level of stress.

ii) The mean stress index of male teachers is higher than the female teachers. It can be said that there is significant difference in stress index of the teachers classified on gender. There exists significant association between gender and level of stress. The percentage of teachers with high level of stress is high with male teachers.

iii) There is no significant difference in stress index of teachers, who belong to different age groups. There is no association between age and level of stress.

iv) There is no significant difference in stress index of the teachers classified on marital status. There is no association between marital status and level of stress.

v) There is no significant difference in stress index of the teachers, who belong to different level of educational qualification. There is no association between educational qualification and level of stress.

vi) There is no significant difference in stress index of the teachers with regard to type of family. There is no association between type of family and level of stress.
vii) There is no significant difference in stress index of the teachers with respect to status in the family. There is no association between status in the family and level of stress.

viii) There is no significant difference in stress index of the teachers grouped on the basis of number of family members. However, there is significant association between number of family members and level of stress. The percentage of teachers with high level of stress is high with teachers from the family of four and above.

ix) There is no significant difference in stress index of the teachers with respect to monthly income. There is no association between monthly income and level of stress.

x) There is no significant difference in stress index of the teachers with regard to family income. There is no association between family income and level of stress.

xi) There is no significant difference in stress index of the teachers classified on the basis of type of institution. There is no association between type of institution and level of stress.

xii) There is no significant difference in stress index of the teachers grouped on the basis of nature of college. There is no significant association between nature of college and level of stress.

xiii) There is significant difference in stress index of the teachers with respect to location of the college. Also, there exists significant association between location of college and level of stress. The percentage of teachers with high level of stress is high with teachers, who belong to the institution which are located at semi-urban areas.

xiv) There is no significant difference in stress index of the teachers classified on the basis of total teaching experience. There is no association between total teaching experience and level of stress.

xv) There is no significant difference in stress index of the teachers classified on the basis of present designation. There is no significant association between present designation and level of stress.
xvi) There is no significant difference in stress index of the teachers, who belong to subject of specialisation. There is no association between subject of specialisation and level of stress.

xvii) There is no significant difference in stress index of the teachers classified on their working status. There is no significant association between current working status and level of stress.

xviii) There is no significant difference in stress index of the teachers grouped on the number of administrative responsibilities. There is no association between administrative responsibilities and level of stress.

xix) There is no significant difference in stress index of the teachers classified on the basis of location of residence. There is no association between location of residence and level of stress.

xx) There is significant difference in stress index of the teachers with respect to working hours. There is significant association between working hours and level of stress. The percentage of teachers with high level of stress is high with teachers working hours are above 7.5 hours.

xxi) There is no significant difference in stress index of the teachers classified on the basis of average number of teaching hours. There is no association between average number of teaching hours and level of stress.

xxii) There is significant difference in causes of stress among the teachers and stress index. There is significant association between causes of stress and level of stress among teachers. That is, the percentage of teachers with high level of stress is high with teachers who have high level of agreeability on causes of stress. The percentage of teachers with low level of stress is high with teachers who have low level of agreeability on causes of stress.

xxiii) Regarding determinants of stress, correlation analysis reveals that gender, location of college-semi urban, subject of specialisation-management, working hours and causes of stress are found to be significant and positively correlated with level of stress.
xxiv) Regression test analysis reveals that of all the variables, gender, working hours and causes of stress significantly influence stress.

xxv) To identify the prominent variable associated with stress, step-wise regression is employed. It is ascertained that causes of stress, working hours and gender collectively contribute 13.30 percent to the variation in stress.

Thus, it is observed that there is significant difference in stress index of the teachers classified on the basis of gender, location of the college, working hours and causes of stress. There is significant association between level of stress and factors such as gender, number of family members, location of the college, working hours and causes of stress.

7.2.3 Effects of Stress

Effects of stress is studied under four sub-headings namely a) psychological consequences, b) physical consequences, c) behavioural consequences and d) organisational consequences. They are compared with the level of stress.

a) Psychological Consequences

i) There exists significant association between level of stress and tendency to worry. Teachers who are with high level of stress are always worried.

ii) There exists significant association between level of stress and forgetfulness. Teachers who are with high level of stress always have a tendency to forget.

iii) There is significant association between level of stress and depression. Teachers who are with high level of stress are always in depression.

iv) There is significant association between level of stress and anger. Teachers who are with high level of stress always get angry.

v) There is significant association between level of stress and boredom. Teachers who are with high level of stress always feel bored.

b) Physical Consequences

i) There exists significant association between level of stress and giddiness. Teachers who are with high level of stress are always in giddiness.
ii) There exists significant association between level of stress and indigestion or constipation or diarrhea. Teachers who are with high level of stress are always affected by indigestion/constipation/diarrhea.

iii) There is significant association between level of stress and headache/backache/chest pain. Teachers who are with high level of stress always have back pain/headache/chest pain.

iv) There is significant association between level of stress and cold. Teachers who are with high level of stress are always affected by cold.

v) There is significant association between level of stress and tiredness/sweating. Teachers who are with high level of stress always feel tired.

vi) There is significant association between level of stress and diabetes. Teachers who are with high level of stress always have diabetes problem.

vii) There exists significant association between the level of stress and tension/blood pressure. Teachers who are with high level of stress are always in tension and affected by blood pressure.

viii) Level of stress and ulcer is significantly associated. Teachers who are with high level of stress always have ulcer problem.

c) Behavioural Consequences

i) There exists significant association between level of stress and over-eating. Teachers who are with high level of stress have always over-eaten.

ii) There is significant association between level of stress and loss of appetite. Teachers who are with high level of stress are always affected by loss of appetite.

iii) There is significant association between level of stress and smoking. Teachers who are with high level of stress have always smoked.

iv) There is no association between level of stress and consumption of alcohol/drugs. However, teachers who are with high level of stress have always consumed alcohol.
v) There is significant association between level of stress and sleeping disorder. Teachers who are with high level of stress have always sleeping disorder problem.

vi) There is significant association between level of stress and emotional outbursts. Teachers who are with high level of stress have always behaved emotionally.

vii) There is significant association between the level of stress and violence/aggression. Teachers who always behave violently/aggressively have high level of stress.

d) Organisational Consequences

i) Level of stress and absenteeism is significantly associated. Teachers who are with high level of stress are always absent.

ii) There exists significant association between level of stress and poor results/performance. Teachers who are with high level of stress always perform poor and deliver poor results in their work.

iii) There is significant association between level of stress and poor work relations. Teachers who always have poor work relations with other members in the institutions have high level of stress.

Thus, it is observed that there is significant association between level of stress and effects of stress such as tendency to worry, forgetfulness, depression, anger, boredom, giddiness, indigestion/constipation/diarrhoea, headache/backache/chest pain, cold, tiredness/sweating, diabetes, tension/blood pressure, ulcer, over-eating, loss of appetite, smoking, sleeping disorder, emotional outbursts, violence/aggression, absenteeism, poor results/performance and poor work relations.

7.2.4. Coping of Stress

Coping strategies to overcome the stress may be personal and organisational. The coping mechanism followed by the teachers and the institutions are:

i) With regard to personal coping strategy, there is significant association between involving in sports and games and level of stress. The percentage of teachers with high level of stress is high with teachers who never involved in sports and games and the percentage of teachers with low level of stress is also high with teachers who never involved in sports.
ii) However, personal coping strategies such as yoga/prayer, listening to music/watching TV/movies/playing musical instruments, reading/writing, discussing official problems with family members, sharing stress with friends, leaving the office early, doing some official work at home, accepting whatever happens, enjoying vacations and involving in social activities are not associated with level of stress.

iii) There is significant association between development of new skills and level of stress. The teachers who had never acquired new skills have high level of stress.

iv) There is significant association between staff meetings and level of stress. The percentage of teachers with high level of stress is high with teachers who never attended the staff meetings or their institutions have not organized any such kind of meetings hitherto.

v) There is significant association between improvement in physical working condition and level of stress. The teachers who never got improvement in physical working condition have high level of stress.

vi) There is significant association between job security and level of stress. The teachers who have never confirmed/assured with job security in their workplace have high level of stress.

vii) There is significant association between development of autonomous work groups and level of stress. The teachers who have never worked with autonomous work groups developed by their organisations have high level of stress.

viii) There is significant association between career development and level of stress. The teachers who never had accessed to the career development in their workplace have high level of stress.

ix) There is significant association between providing refreshment during meetings and level of stress. It is inferred that the teachers who never had taken refreshments provided during meetings have high level of stress.
x) Encouraging staff tour/picnic and level of stress is significantly associated. The teachers, whose organisations have never encouraged staff tour/picnic have high level of stress.

xi) There is a significant association between stress management counselling and level of stress. The teachers, whose organisations have never arranged stress management counselling have high level of stress.

xii) There is no association between job rotation, job re-design, arranging family get-together and level of stress.

Thus, it is observed that there is significant association between level of stress and coping of stress such as involving in sports and games, development of new skills, staff meetings, improvement in physical working condition, job security, developing autonomous work groups, career development, providing refreshment during meetings, encouraging staff tour/picnic and stress management counseling.

7.3 SUGGESTIONS

In the light of findings of the study and the views expressed by the respondents, the following suggestions are made to the a) teachers, b) management and c) regulatory bodies.

a) To the Teachers

i) Teachers may attend stress management counselling organized by their institution and/or by external institutions.

ii) Teachers may involve in sports and games during leisure hours.

iii) Preventive measures may be taken immediately when there is symptom of stress.

iv) Practicing meditation/yoga will not only help to concentrate on work but also reduce stress.

v) Time may be devoted for recreation with family members, friends and relatives.

vi) Always maintain cordial relation with the management and the students.
b) To the Management

Administration shall create a positive working environment to the faculty members. They may: a) treat faculty as an investment; b) clearly state expectations, obtain regular feedback, and provide rewards, and c) establish support systems for teachers.

i) Stress management workshops and counselling may be conducted by the organisation frequently.

ii) Refresher courses/workshop/training programmes may be arranged to the faculty members to develop new skills, to learn new technologies and thus facilitate their career development.

iii) Frequent staff meetings may be conducted by the organisation to discuss their grievances and academic problems.

iv) Improve the working condition through setting-up of adequate infrastructure facilities.

v) Faculty members who are assigned extra classes and extra work may be encouraged with monetary and non-monetary incentives.

vi) The work load to the faculty members may be reduced and clerical work performed by the faculty members may be assigned to supporting staff members.

vii) Tour/picnic may be arranged for faculty members at least once a year.

viii) Arranging sports and games events for the faculty members and involvement of all faculty members may help to reduce stress.

ix) Staff quarters may be provided.

x) Probationary period for the faculty members may be reduced and job security may be ensured.

xi) Identifying the faculty members who absent frequently for the college and counselling may be given based on their personal/organisational problems.

xii) Cordial relation with faculty members may be created and ensured through delegation of authority and setting-up of autonomous work groups.

xiii) AICTE, UGC and Affiliating university norms may be fully adhered.
c) To the Regulatory Bodies

The Regulatory bodies like UGC, AICTE, NBA and NAAC at National level and DoTE and Affiliating University at state level:

i) shall ensure the provision of staff welfare facilities and stress free environment in all the higher educational institutions without any compromise.

ii) shall direct the institutions to strictly follow the student-teacher ratio.

iii) shall consider reducing the total intake of a class.

iv) shall arrange and conduct stress management programmes directly in the selective colleges or through affiliating universities.

v) shall arrange workshop/training/seminar of new technologies and faculty development programmes to the faculty members frequently.

7.4 CONCLUSION

The study identifies teachers working in self-financing engineering institutions as one occupational group that functions under conditions of high stress. There is a need to acknowledge the existence of stress and immediate measures be taken to reduce their stress. Excessive teacher stress, if left unattended, may lead to have long-term negative consequences not only to the individual teachers, but also to the institutions. Some of the suggested areas for further research are: i) the study may be extended to State level/National level. ii) a comparative study may be conducted between government and self-financing engineering institutions and iii) finding stress among professional college teachers other than engineering colleges may be undertaken. The suggestions, if put to practice, will not only make teachers’ lives more bearable, but also help them to work more effectively, and thereby improve the quality of education as a whole.