

**Level Of Stress Among Engineering And Management Students In Coimbatore City**

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**Abstract**

Students experience enormous amounts of stress, whether a student of a school or a college, in the family or among their peers. Also, students ride the roller coaster every day in the hectic schedule. In this prevailing competitive world, the level of stress is understood to be on the higher side among the Engineering and Management students owing to their academic and personal reasons. This paper consists of objectives, need and significance, methodology, analysis, findings, suggestions and conclusion. This paper highlights the conceptual understanding on stress management, level of stress among Engineering and Management students, reasons for stress and stress management. The objectives are to study the level of stress among the engineering and management students & to know the various causes that create stress among engineering and management students. Students do their jobs themselves to ensure they are done properly and they feel irritated or angry if the car or traffic in front seems to be going too slowly/ they become very frustrated at having to wait in a queue. Female Management students are likely to experience stress related ill health either mental, physical or both. By inculcating the habit of enhancing interpersonal skills and shall seek the help of others in completing their tasks so that the level of stress may come down.

**Keywords:** Stress management, symptoms of stress and Engineering and Management students stress

**Introduction**

Stress is a dynamic condition in which an individual is confronted with an opportunity, demand or resource related to what the individual desires and for which the outcome is perceived to be both uncertain and important. Stress is not necessarily bad in and of itself. Although stress is typically discussed in a negative context, it also has a positive value. Stress in its positive form – *eustress* – is necessary, healthy, and enjoyable. However, the negative form – *distress* – can be damaging if left unmanaged.

**Symptoms of Stress**

- Nervousness, constant worry
- Easily provoked to anger
- Unable to relax
- Physical ailment
- suicide

### **Need and Significance of the study**

The students who pursue engineering and management courses undergo a high level of stress due to academic assignments, college environment, extracurricular, workload, time management and parent pressures. It is essential to understand and analyze the reasons for stress and measures to reduce stress to improve their overall performance. Hence, this study is designed.

### **Objectives of the study**

The objectives of the study are listed below.

- To study the level of stress among the engineering and management students
- To know the various causes that create stress among engineering and management students
- To identify the measures to reduce the stress of engineering and management students

### **Review of Literature**

**Charles J. Hobson & Linda Delunas** of Indiana University Northwest conducted a study on Efficacy of Different Techniques for Reducing Stress: A Study among Business Students in the United States. The Objectives and findings of the study are narrated. The effects of three commonly recommended stress reduction strategies were empirically evaluated in a sample of 233 working adults attending evening MBA or undergraduate business classes part-time at an urban state university campus in the United States. A self-experiment protocol was utilized to assess the effectiveness of: (1) deep breathing, (2) imagery, and (3) progressive relaxation in reducing resting pulse rate. All subjects used each of these techniques on three occasions; measuring resting pulse before each trial and after each trial. This allowed for the calculation of a mean change in pulse rate across three applications for each technique for all subjects. Major findings included: (1) all three techniques demonstrated statistically significant mean reductions in pulse rate per minute; deep breathing – 7.22, imagery – 5.74, and progressive relaxation – 5.26, (2) comparative analyses documented a statistically significant superiority of deep breathing over the other two techniques, (3) there were no differences in mean effectiveness for the three techniques between men and women, and (4) 88% of the sample experienced success in reducing stress with all three techniques.

**Ablanedo-Rosas, Jose Humberto, Blevins, Randall C, Gao, Hongman, Teng, Wen-Yuan, White, Joann** conducted a study on The impact of occupational stress on academic and administrative staff, and on students: an empirical case analysis. The Objectives and findings of the study are narrated. This study examined the impact of occupational stress among academic staff, administrative staff, and students in a well-established US university environment. The results show that there are different correlations associated with stress such as organisational demand, health issues, and stress management. Findings suggest that occupational stress levels differed between academic staff, administrative staff, and students. However, at the aggregate level, stress levels were similar by either gender or age. Different stress factors, such as work overload, feeling overwhelmed and interrelated relationships were analysed. Students reported significant outcomes from stress: having sleep problems, depression, and irritability

**Antoniou, A.-S Polychroni, Viachakis, A** conducted a study on Gender and age differences in occupational stress and professional burnout between primary and high-school teachers in Greece. The Objectives and findings of the study are narrated. This study identified the specific sources of occupational stress and the professional burnout experienced by teachers working in Greek primary and secondary schools. A special emphasis is given to gender and age differences. Design/methodology/approach - A cross-sectional design was used. Two self-report measures were administered to a sample of 493 primary and secondary school teachers, a self-report rating scale of specific occupational stressors and the Maslach Burnout Inventory (education version). Findings - The most highly rated sources of stress referred to problems in interaction with students, lack of interest, low attainment and handling students with 'difficult' behaviour. Female teachers experienced significantly higher levels of occupational stress, specifically with regard to interaction with students and colleagues, workload, students' progress and emotional exhaustion. Younger teachers experienced higher levels of burnout, specifically in terms of emotional exhaustion and disengagement from the profession, while older teachers experienced higher levels of stress in terms of the support they feel they receive from the government. Practical implications - The findings will help to implement effective primary and secondary level prevention programmes against occupational stress taking into account how males and females and younger and older teachers perceive stress at work. Originality/value - The study is a significant addition to the teacher stress and burnout literature, especially in Greece where few relevant studies exist dealing with these problems.

### **Methodology**

#### **Sampling method**

Convenience sampling method was used to collect necessary primary data for the study.

Sample size: 300 college students (196 Engineering students and 104 Management students) from Coimbatore city

#### **Data Collection**

##### ***Primary data***

A questionnaire was adapted from The International Stress Management Association (ISMAUK) administered to collect primary data.

##### ***Secondary data***

Considerable secondary data has also been collected from journals, magazines, previous research papers and newspapers.

#### **Limitations of the study**

Since the selected sample size is small when compared to the total population, this study cannot be generalized to other areas.

#### **Data analysis**

The collected data was tabulated and analyzed using percentage analysis method.

**General interpretations for the questionnaire administered to collect primary data**

**4 points or less:** You are least likely to suffer from stress-related illness.

**5 - 13 points:** You are more likely to experience stress related ill health either mental, physical or both. You would benefit from stress management / counseling or advice to help in the identified areas.

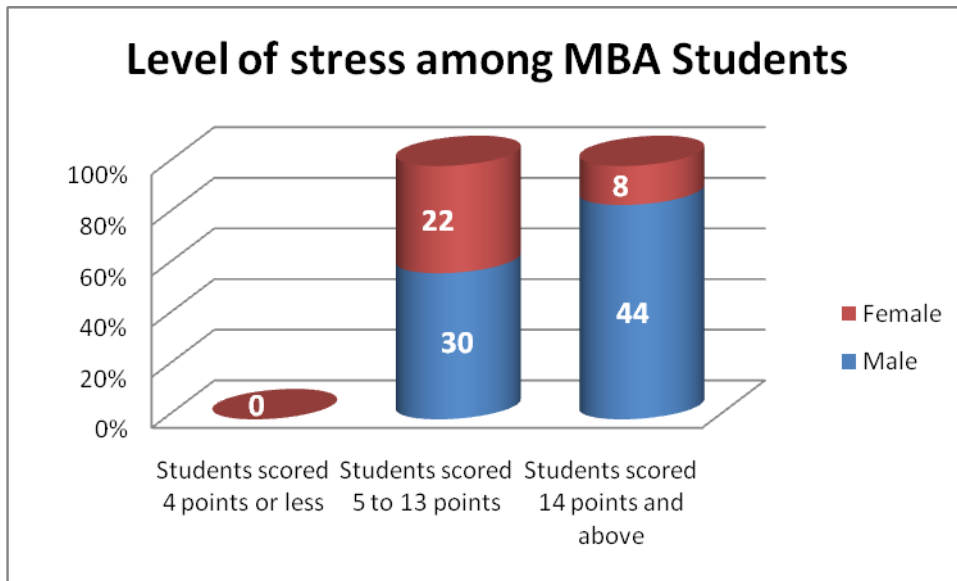
**14 points or more:** You are the most prone to stress showing a great many traits or characteristics that are creating un-healthy behaviours. This means that you are also more likely to experience stress & stress-related illness e.g. diabetes, irritable bowel, migraine, back and neck pain, high blood pressure, heart disease/strokes, mental ill health (depression, anxiety & stress). It is important to seek professional help or stress management counseling. Consult your medical practitioner.

**Adapted from:** The International Stress Management Association (ISMAUK) [www.isma.org.uk](http://www.isma.org.uk)

**Table 1: Level of stress among MBA Students**

Particulars	Male		Female		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Students scored 4 points or less	0	0.0	0	0.0	0	<b>0.0</b>
Students scored 5 to 13 points	30	40.5	22	73.3	52	<b>50.0</b>
Students scored 14 points and above	44	59.5	8	26.7	52	<b>50.0</b>
<b>Total</b>	<b>74</b>	<b>100.0</b>	<b>30</b>	<b>100.0</b>	<b>104</b>	<b>100.0</b>

**Chart 1: Level of stress among MBA Students**

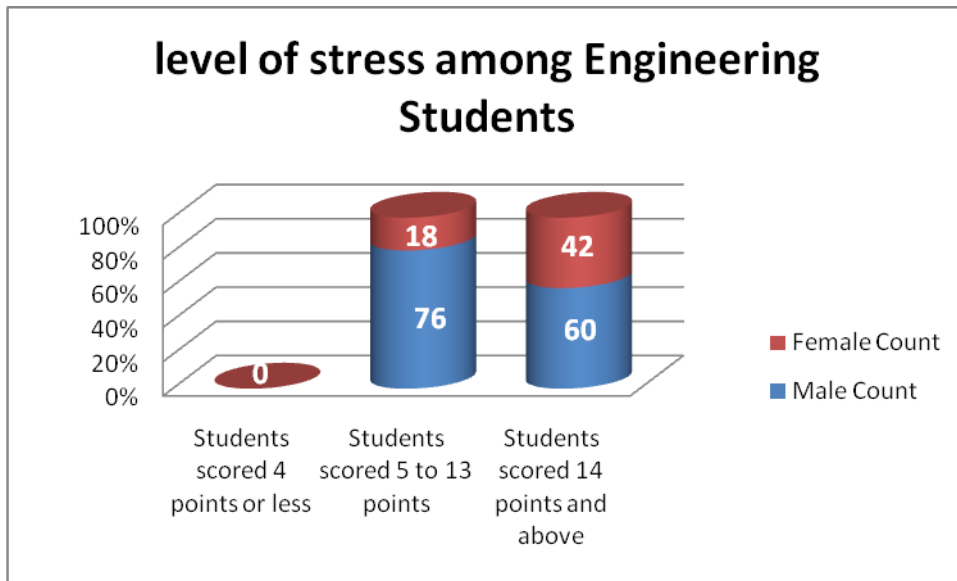


From the above table, it is inferred that 73.3% of female MBA students and 40.5 % of male MBA students are likely to experience stress related ill health either mental, physical or both. And 59.5% of the male MBA students and 26.7% of female MBA students are more likely to experience stress & stress-related illness e.g. diabetes, irritable bowel, migraine, back and neck pain, high blood pressure, heart disease/strokes, mental ill health (depression, anxiety & stress)

**Table 2: Level of stress among Engineering Students**

Particulars	Male		Female		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Students scored 4 points or less	0	0.0	0	0.0	0	<b>0.0</b>
Students scored 5 to 13 points	76	55.9	18	30.0	94	<b>48.0</b>
Students scored 14 points and above	60	44.1	42	70.0	102	<b>52.0</b>
<b>Total</b>	<b>136</b>	<b>100.0</b>	<b>60</b>	<b>100.0</b>	<b>196</b>	<b>100.0</b>

Chart 2: Level of stress among Engineering Students



It is inferred from the above table that 55.9 % of male Engineering students and 30.0 % of female Engineering students are likely to experience stress related ill health either mental, physical or both and 70.0 % of the female Engineering students and 44.1% of male Engineering students are more likely to experience stress & stress-related illness e.g. diabetes, irritable bowel, migraine, back and neck pain, high blood pressure, heart disease/strokes, mental ill health (depression, anxiety & stress)

**Chi Square Test 1**

	Stress Factor	
	Yes	No
Engineering Students	2564	2336
MBA Students	1376	1218

**Null Hypothesis:** There is no Significance Difference between Qualification and stress level

**Alternate Hypothesis:** There is a significant Difference between Qualification and stress level

**Tabulated Value @ 5% LOS :** 3.84

**Calculated Value:** 0.158

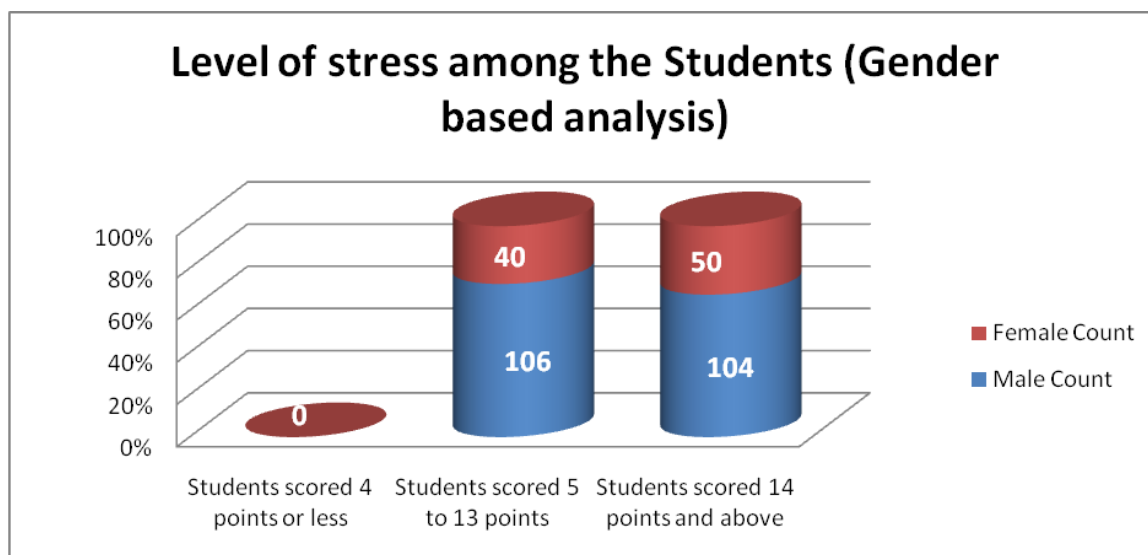
**Result:** Accept Ho, since calculated vale < Tabulated Value

**Interpretation:** There is no association between degree / qualification and stress level

**Table 3: Level of stress among the Students (Gender based analysis)**

Particulars	Male		Female		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Students scored 4 points or less	0	0.0	0	0.0	0	<b>0.0</b>
Students scored 5 to 13 points	106	50.5	40	44.4	146	<b>48.7</b>
Students scored 14 points and above	104	49.5	50	55.6	144	<b>51.3</b>
<b>Total</b>	<b>210</b>	<b>100.0</b>	<b>90</b>	<b>100.0</b>	<b>300</b>	<b>100.0</b>

**Chart 3: Level of stress among the Students (Gender based analysis)**



It is clearly interpreted from the above table that 50.5% of male students and 44.4 % of female students are likely to experience stress related ill health either mental, physical or both. And 55.6 % of the female students and 49.5 % of male students are more likely to experience stress & stress-related illness e.g. diabetes, irritable bowel, migraine, back and neck pain, high blood pressure, heart disease/strokes, mental ill health (depression, anxiety & stress)

**Chi Square Test 2**

	Stress Factor	
	Yes	No
Male	2716	2480
Female	1224	1074

**Null Hypothesis:** There is no Significance Difference between Gender and stress level

**Alternate Hypothesis:** There is a significant Difference between Gender and stress level

**Tabulated Value:** @ 5% LOS – 3.84

**Calculated Value:** 0.133

**Result:** Accept Ho, since calculated vale < Tabulated Value

**Interpretation:** There is no association between Gender and stress level

S.No	Particulars	MBA students mentioned yes		ENGG students mentioned yes		Total	
		Count	Percentage	Count	Percentage	Count	Percentage
1	I frequently bring work home at night	60	57.7	130	66.3	190	63.3
2	Not enough hours in the day to do all the things that I must do	48	46.2	138	70.4	186	62.0
3	I deny or ignore problems in the hope that they will go away	52	50.0	108	55.1	160	53.3
4	I do the jobs myself to ensure they are done properly	88	84.6	168	85.7	256	85.3
5	I underestimate how long it takes to do things	66	63.5	84	42.9	150	50.0
6	I feel that there are too many deadlines in my	56	53.8	98	50.0	154	51.3



	work / life that are difficult to meet						
7	My self confidence / self esteem is lower than I would like it to be	50	48.1	86	43.9	136	45.3
8	I frequently have guilty feelings if I relax and do nothing	54	51.9	116	59.2	170	56.7
9	I find myself thinking about problems even when I am supposed to be relaxing	80	76.9	116	59.2	196	65.3
10	I feel fatigued or tired even when I wake after an adequate sleep	42	40.4	134	68.4	176	58.7
11	I often nod or finish other people sentences for them when they speak slowly	34	32.7	84	42.9	118	39.3
12	I have a tendency to eat, talk, walk and drive quickly	64	61.5	122	62.2	186	62.0
13	My appetite has changed, have either a desire to binge or have a loss of appetite / may skip meals	46	44.2	84	42.9	130	43.3
14	I feel irritated or angry if the car or traffic in front seems to be going too slowly/ I become very	68	65.4	138	70.4	206	68.7

	frustrated at having to wait in a queue						
15	If something or someone really annoys me I will bottle up my feelings	66	63.5	114	58.2	180	60.0
16	When I play sport or games, I really try to win whoever I play	80	76.9	148	75.5	228	76.0
17	I experience mood swings, difficulty in making decisions, concentration and memory is impaired	50	48.1	122	62.2	172	57.3
18	I find fault and criticize others rather than praising, even if it is deserved	28	26.9	32	16.3	60	20.0
19	I seem to be listening even though I am preoccupied with my own thoughts	86	82.7	148	75.5	234	78.0
20	I find myself grinding my teeth	34	32.7	42	21.4	76	25.3
21	Increase in muscular aches and pains especially in the neck, head, lower back, shoulders	52	50.0	96	49.0	148	49.3
22	I am unable to perform tasks as well as I used to, my judgment	48	46.2	88	44.9	136	45.3

	is clouded or not as good as it was						
23	I find I have a greater dependency on alcohol, caffeine, nicotine	16	15.4	20	10.2	36	12.0
24	I find that I don't have time for many interests / hobbies outside of work	56	53.8	96	49.0	152	50.7
25	My drive to opposite gender decrease with change in time	52	50.0	52	26.5	104	34.7

**Major findings**

Some of the findings from this study are 85.3 % of the respondents have agreed that they do their jobs themselves to ensure they are done properly, 68.7 % of the respondents have opined that they feel irritated or angry if the car or traffic in front seems to be going too slowly/ they become very frustrated at having to wait in a queue, 76.0 % of the respondents agreed that when they play sport or games, they really try to win whoever plays opposite, 78.0 % of the respondents have agreed that they seem to be listening even though they are preoccupied with their own thoughts, 73.3% of female MBA students are likely to experience stress related ill health either mental, physical or both, 59.5% of the male MBA students are more likely to experience stress & stress-related illness, 55.9 % of male Engineering students are likely to experience stress related ill health either mental, physical or both, 70.0 % of the female Engineering students are more likely to experience stress & stress-related illness, 50.5% of male students are likely to experience stress related ill health either mental, physical or both and 55.6 % of the female students are more likely to experience stress & stress-related illness

**Suggestions**

The suggestions based on the findings are the students shall inculcate the habit of enhancing interpersonal skills and shall seek the help of others in completing their tasks so that the level of stress may come down, the students shall learn how to handle failures by listening to motivational speakers, reading related books. The students shall involve in sports, games, yoga, meditation and extracurricular activities to divert their mind from unnecessary strain, the students shall learn art of multi-skilling, prioritize their work and execute their works in order to reduce pressure and trauma, the students shall attend counseling and mentoring sessions by their faculty members and experts to share their burdens and get relieved from their worries and tensions and the students shall seek advice

from psychiatrists and medical practitioners in order to reduce the fatigue and stress level

### **Conclusion**

Stress is a common phenomenon among professional degree students. Due to academic assignments, peer pressures, performance metrics, the Engineering and Management students are easily provoked to anxiety and constant worry. Therefore, the student's performance is largely affected. Hence, the students should learn and acclimatize to the given situations. Counseling, yoga, physical exercise, sports and spiritual activities comes handy to manage their stress effectively.

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**Appendix**

**Questionnaire**

Name (Optional) :  
 Age :  
 Gender :  
 Educational Qualification :

Answer all the questions by tick in the respective column. Answer yes, *even if only part of a question applies to you*. Take your time, but please be completely honest with your answers

<b>S.No</b>	<b>Particulars</b>	<b>Yes</b>	<b>No</b>
1	I frequently bring work home at night		
2	Not enough hours in the day to do all the things that I must do		
3	I deny or ignore problems in the hope that they will go away		
4	I do the jobs myself to ensure they are done properly		
5	I underestimate how long it takes to do things		
6	I feel that there are too many deadlines in my work / life that are difficult to meet		
7	My self confidence / self esteem is lower than I would like it to be		
8	I frequently have guilty feelings if I relax and do nothing		
9	I find myself thinking about problems even when I am supposed to be relaxing		
10	I feel fatigued or tired even when I wake after an adequate sleep		
11	I often nod or finish other people sentences for them when they speak slowly		
12	I have a tendency to eat, talk, walk and drive quickly		
13	My appetite has changed, have either a desire to binge or have a loss of appetite / may skip meals		
14	I feel irritated or angry if the car or traffic in front seems to be going too slowly/ I become very frustrated at having to wait in a queue		
15	If something or someone really annoys me I will bottle up my feelings		
16	When I play sport or games, I really try to win whoever I play		
17	I experience mood swings, difficulty in making decisions,		

	concentration and memory is impaired		
18	I find fault and criticize others rather than praising, even if it is deserved		
19	I seem to be listening even though I am preoccupied with my own thoughts		
20	I find myself grinding my teeth		
21	Increase in muscular aches and pains especially in the neck, head, lower back, shoulders		
22	I am unable to perform tasks as well as I used to, my judgment is clouded or not as good as it was		
23	I find I have a greater dependency on alcohol, caffeine, nicotine		
24	I find that I don't have time for many interests / hobbies outside of work		
25	My drive to opposite gender decrease with change in time		

Source: International Stress Management Association (ISMAUK)