CHAPTER - 4

RESULTS AND DISCUSSION

Indian students are facing several challenges mainly to manage test anxiety and to cope with academic stress. This result for an alternative intervention programme that would help them deals with academic anxiety in a better way. The findings of the present study entitled ***"Resource Availability and Academic Stress among Higher Secondary Students"***, is systematically compiled and presented in this chapter. For ease of understanding as well as for convenience, the results and its discussion are presented in this chapter under the following headings.

Phase 1:

This part of the results discusses about the survey conducted among thousand students, among which 50 per cent were from eleventh (XI) and 50 per cent from twelfth (XII) standard. The results of the survey are presented under the following headings.

4.1. Conspectus of selected students

4.2. Factors influencing selection of school

4.3. Mode of transportation used

4.4. Availability of resources

4.5. Foods opted by selected students

4.6. Supportive network accessible for selected students

4.7. Satisfaction towards academic performance

4.8. Symptoms of stress experienced by selected students

4.9. Stress coping among selected students

4.10. Students stress and test anxiety towards board exam

Phase 2:

4.11. Conduct of intervention programme among selected twelfth students

Phase 3:

4.12. Evaluation of intervention programme among selected twelfth students

Phase 4:

4.13. Report of case study

Phase 1:

Findings of the survey

The details of the students are presented under the following sub-headings.

4.1. Conspectus of Selected Students

General views of selected students are presented under this aspect of study. The selected students represented higher secondary class from science group studying in matriculation schools. The data regarding the personal profile of the selected students are given in Table 4. The details include age, family size, family type and number of siblings among the selected students.

Table 4: Conspectus of Selected Students

Student Profile	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Age (Yrs)						
15	96	19	-	-	96	10
16	362	73	206	41	568	57
17	36	7	276	55	312	31
18 and above	6	1	18	4	24	2
Family Size						
Small (3-4)	351	70	309	62	660	66
Medium (5-7)	128	26	161	32	289	29
Large (above 7)	21	4	30	6	51	5
Family Type						
Joint	122	24	118	24	240	24
Nuclear	378	76	382	76	760	76
Number of Siblings						
None	72	14	72	14	144	14
One	428	86	428	86	856	86

Age

Analysis as per information received, majority 73 per cent of the selected students in class eleven belonged to the age group 16 years following the normal trend while 41 per cent of students in the same age were in class twelve. Similarly, 55 per cent of class twelve students were of 17 years of age as compared to seven percent of same age in class eleven. Figure 6 represents age of the selected students.

Figure 6: Age of the Selected Students

Family Size

It was observed that maximum 70 per cent of eleventh standard students and 62 per cent of twelfth standard students belonged to small family followed by 32 per cent of twelfth and 26 per cent of eleventh standard students belonged to medium size family. Only six per cent of twelfth standard and four per cent of eleventh standard students were from large family. This proves the successful outcome of the efforts taken by the Government to establish small family norms.

Type of family

Joint family has been the most important unit of a family structure in the Indian society since time immemorial. However in this modern age, the traditional joint family structure is disintegrating and nuclear family is emerging due to several reasons such as education, employment, economic necessity and change in life style. The data indicates that majority 76 per cent of students were from nuclear family while the rest were from joint families. This depicts the trend moving from joint family towards nuclear family system. The predominant nature of nuclear family structure is the advantage towards freedom of expression and decision-making, chance for better education, employment and adapting to preferred living pattern. Disintegration of joint families and development of nuclear families often inhibits students from getting advice from grandparents who could be a great support to younger generation.

Siblings

Irrespective of class, regarding siblings of the selected students, it was observed that majority 86 per cent of the selected students had one sibling while 14 per cent were only child to their parents. Being a single child the parents generally tend to over-protect their children from the external influences that may affect the child.

4.2. Factors Influencing Selection of School

Academic institutions have different work settings. Therefore, one would expect the difference in symptoms, causes, and consequences of stress among students (Chang and Lu, 2007). The details regarding factors influencing selection of school are given in Table 5.

Table 5: Factors Influencing Selection of School

Factors	Class wise distribution of students *								Total (N=1000)			
	XI (N=500)				XII (N=500)							
	YES	%	NO	%	YES	%	NO	%	YES	%	NO	%
Good results	458	92	42	8	476	95	24	5	934	93	66	7
Value based education	405	81	95	19	428	86	72	14	833	83	167	17
Good in co-curricular and extra-curricular activities	381	76	119	24	358	72	142	28	739	74	261	26
Affordable Fees	331	66	169	34	344	69	156	31	675	68	325	32
Influence of Friends and Relatives	249	50	251	50	253	51	247	49	502	50	498	50
Proximity of the house	233	47	267	53	251	50	249	50	484	48	516	52
No specific preference	98	20	402	80	121	24	379	76	219	22	781	78
Parent Compulsion	89	18	411	82	76	15	424	85	165	16	835	84
*Multiple responses												

Comparison of criteria for selection of school between XI and XII standard students							
Criteria for selection of school	Class	N	Mean	Standard deviation	Std. Error Mean	't' value	p value
	XI	500	5.28	1.429	0.064	1.229 NS	0.219
	XII	500	5.39	1.453	0.065		

NS-Not Significant

An exemplary majority of 95 per cent of twelfth and 92 per cent of eleventh students joined the present school as persistent good results were produced by that school. This was the main reason that motivated them to join present school, followed by 86 per cent of twelfth and 81 per cent of eleventh standard students who selected the present school since the school gave value based education. This result was also justified by Goodman (1993) affirming that students have different expectations, goals, and values that they want to fulfill, which is only possible if the students' expectations, goals, and values are integrated with that of the institution. It is important to the society that students should acquire knowledge and skills that will make them contribute positively to the development of any nation.

Seventy six per cent of eleventh and 72 per cent of twelfth students joined the present school as the school provided more of co-curricular and extra-curricular activities. It is important for the institutions to maintain well balanced academic environment conducive for supportive learning, with the focus on the students' personal needs. Affordable fees were the reason for choosing the present school among 69 per cent of twelfth standard students and 66 per cent of eleventh standard students. Fifty-one per cent of twelfth and 50 per cent of eleventh standard students were influenced by their friends and relatives. Fifty per cent of twelfth and 47 per cent of eleventh standard students opted for the present school as it was near their house. Only 18 per cent of eleventh and 15 per cent of twelfth students were in the present school due to their parent's compulsion. This proves the fact that the students' preferences were considered while admitting them in eleventh standard by the parents. It was encouraging to note that a clear majority of 80 per cent of twelfth and 79 per cent of eleventh students reported that they were fully satisfied with their current school. The rest of them were not satisfied with the school, since the schools have not met the expectation of the students.

The't' Table shows the mean, standard deviation and 't' value of factors influencing selection of school among eleventh and twelfth students. The results of the t test revealed that there is no significant difference among eleventh and twelfth students in the factors that influenced them to join the present school.

4.3. Mode of Transportation Used

The data regarding mode of transportation used to go to school by the selected students are given in Table 6.

Table 6: Mode of Transportation Used by Selected Students

Mode of Transportation	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Private transport	149	30	141	28	290	29
By walk	98	20	93	19	191	19
Government Bus	92	18	74	15	166	17
Cycle	69	14	71	14	140	14
Parent drop in their vehicle	58	11	77	15	135	14
2-Wheeler	28	6	36	7	64	6
School transport	6	1	8	2	14	1

It could be inferred from the above Table that 30 per cent of eleventh students and 28 per cent of twelfth students used private transport such as auto or car to reach their school due to time limitation. Twenty per cent of eleventh students and 19 per cent of twelfth students went to school by walk because they were living close by. Some of the parents would have admitted their children in the nearby schools to reduce the stress involved in transportation.

Parents took care for 15 per cent of twelfth students in personally commuting them to school as compared to 11 per cent of eleventh students. Despite the transport facilities provided by the respective schools only two per cent of twelfth and one per cent of eleventh students reached school using school transport vehicle. The students could not use it, due to special classes conducted for eleventh and twelfth standard students. Hence they could not go at regular time in the vehicle.

4.4. Availability of Resources

Students are forced to adjust with the availability of time and energy that are so demanding to focus for their academic success. The results of this part of the study, is discussed under the following headings.

4.4.1. Time expended in school
4.4.2. Time availed for attending coaching classes
4.4.3. Time preferred for study
4.4.4. Planning of time for study
4.4.5. Time spent towards various other activities
4.4.6. Types of fatigue and its symptoms experienced
4.4.7. Financial assistance received from parents
4.4.8. Amount spent for non-academic activities

4.4.1. Time expended in school

Of all the resources, time is one of the easiest to measure, but one of the difficult to manage. Different people have different kinds of demands on their time use. However, everyone learns to use their time effectively by following some kind of time patterns. Below Table indicates the use of time by selected students.

Table 7: Time Spent in School by Selected Students

Use of time	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Time leaving to school (a.m)						
7.00-7.30	112	22	94	19	206	21
7.30-8.00	217	44	267	53	484	48
8.00-8.30	152	30	123	25	275	27
Any Other	19	4	16	3	35	4
Time of commencement of School (a.m)						
8.00-8.30	438	88	485	97	923	92
8.30-9.00	62	12	15	3	77	8
Hours spent in school						
7 hours	20	4	2	0	22	2
8 hours	203	41	157	31	360	36
9 hours	259	52	307	62	566	57
Any other	18	3	34	7	52	5
Time available for lunch						
15 Minutes	118	24	82	16	200	20
30 Minutes	308	62	306	61	614	61
45 Minutes	48	10	49	10	97	10
60 Minutes	2	0	7	1	9	1
Any Other	24	4	56	12	80	8
Time to reach home						
After 4 pm	245	49	283	57	528	53
Before 4 pm	255	51	217	43	472	47
Regularity in reaching home on time						
Never	4	1	9	2	13	1
Sometimes	96	19	112	23	208	21
Always	400	80	379	75	779	78

Time leaving to school

Regarding time to leave to school from home, 53 per cent of twelfth and 44 per cent of eleventh students left to school between 7.30-8.00 am. While 30 per cent of eleventh and 25 per cent of twelfth started between 8.00-8.30 am. However, 22 per cent of eleventh and 19 per cent of twelfth students departed little early between 7.00-7.30 am. Although there is little specific data on this, anecdotal evidence suggests that students may spend up to 12 hours a day in school, tutorials, and commuting from house and school (Rao, 2008).

Time of commencement of school

Among the selected students' an overwhelming majority of 97 per cent of twelfth and 88 per cent of eleventh standard students referred that their school commenced between 8 to 8.30 am daily. Depending upon the distance to commute the students had to leave their home early.

Hours spent in school

It is clear from the Table that, 62 per cent of twelfth and 52 per cent of eleventh standard students spent nine hours in school, while 41 per cent of eleventh and 31 per cent of twelfth students spent eight hours in school. Generally, the students are given extra coaching in the school. Hence the students are made to stay extra hours in the school.

Time available for lunch

Maximum 62 per cent of eleventh and 61 per cent of twelfth standard students informed that they had only half an hour of lunch interval.

Time to reach home

Fifty seven per cent of twelfth and 49 per cent of eleventh standard students reached home after 4 pm. It could also be inferred that 51 per cent of eleventh and 43 per cent of twelfth reached home before 4 pm. Earlier they reached home the more the time they had to take rest, freshen up and get geared up for evening study or to attend special coaching classes conducted outside school campus.

Regularity in reaching home on time

Maximum 80 per cent of eleventh students and 75 per cent of twelfth students always reached home on time. Twenty three per cent of twelfth and 19 per cent of eleventh students on some days reached home on time without any delay. Only a negligible percentage of students never reached home on time, since they had extra coaching classes.

4.4.2. Time availed for attending coaching classes

Table 8 shows the time availed for coaching classes among the selected students.

Table 8: Time Availed for Coaching Classes by Selected Students

Time spent	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Attend tuition class						
Yes	264	53	292	58	556	56
No	236	47	208	42	444	44
Tuition days / week						
0	236	48	208	42	444	44
1	4	1	2	0	6	1
2	18	4	22	4	40	4
3	57	11	64	13	121	12
4	30	6	37	7	67	7
5	40	7	41	9	81	8
6	53	11	51	10	104	10
7	62	12	75	15	137	14
Future academic plans						
Other courses	86	17	137	27	223	22
Engineering	251	50	216	43	467	47
Medicine	163	33	147	30	310	31

Students attending tuition classes

Notable information from the data is that 58 per cent of twelfth and 53 per cent of eleventh standard students went for tuition classes. It showed an increase of five per cent among twelfth students who attended tuition class when compared with eleventh standard. Forty seven per cent of eleventh and 42 per cent of twelfth students did not attend any tuition classes. May be the extra coaching given in their respective schools would have been adequate for them or they could not spare time for tuitions or maybe they do not want to reveal that they go for tuitions as some teachers discourage student's going for tuitions.

An equal percentage (63 per cent) of eleventh and twelfth students had an opinion that tuition classes will be helpful to cope up with academics. These results are in accordance with an article by Murthy (2005), published in The Hindu, discussed that public perception at present is that private tuition is a necessity to succeed in entrance tests and board exams.

Number of days of tuition attended per week

An interesting revelation from the study was that 15 per cent of twelfth students attended tuition classes on all seven days in a week; however the percentage was lesser (12 per cent) among eleventh students. Thirteen per

cent of twelfth and 11 per cent of eleventh students attended three days of tuition classes per week. The reason may be that students preferred to attend tuition classes on alternate days or they would have preferred to take tuitions in specific subjects which they were not confident of scoring good marks.

Ninety-five per cent of twelfth and 94 per cent of eleventh standard students did not attend coaching classes to prepare for IIT entrance as they had different aim to be carried out after completion of their board exams. The observed results could be because the selected students were from Matriculation schools as compared to CBSE (Central Board of Secondary Education) where most of the students prepare for IIT (Indian Institute of Technology) and JEE (Joint Entrance Examination), simultaneously with higher secondary classes. This study does not include NEET (National Eligibility cum Entrance Test) exams since the survey was done much earlier.

In order to excel NEET, it is not just good enough if the student is only sound in academics as it comprises of eleventh and twelfth syllabus on physics, chemistry and biology. Time management plays a vital role for NEET preparations as the syllabus is vast and widespread. Hence this can be finished only by efficient handling of time. Quantum of portions to be covered in less time is one of the key challenges. Coaching centers facilitate in offering a crash course and complete in fast pace. One needs to utilize these coaching classes rather than physically present in the class. Hence aspired students at present may be piled up with more of academic stress.

Future academic plans

The students by the time they came to twelfth standard they will be able to decide their future better when compared to the eleventh standard students. This is represented in the results where only 50 per cent of the respondents of eleventh standard had the future academic choice of getting admission in an engineering college, however this percentage was slightly lesser (43 per cent) among twelfth standard students. Thirty three per cent of eleventh students considered medicine as their academic choice. However, the percentage was lesser (30 per cent) among twelfth students. Twenty seven per cent of twelfth and 17 per cent of eleventh standard students preferred other upcoming courses besides engineering and medicine as their

future academic choice as they would have felt that pursuing professional courses would be difficult or they would have traced better scope in other courses.

4.4.3. Time preferred for study

Table 9 show the time preferred for study by selected students.

Table 9: Time Preferred for Study by Selected Students

Time preferences	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Time of study						
Night	172	34	174	35	346	35
Evening	176	35	144	29	320	32
Morning	152	31	182	36	334	33
Study hours per day						
2-4 hours	335	67	265	53	600	60
4-6 hours	89	18	150	30	239	24
6-8 hours	25	5	35	7	60	6
Any other	51	10	50	10	101	10

Time of study

Each one must determine the best time of full-fledged study since it varies from one individual to other. Thirty six per cent of twelfth and 31 per cent of eleventh students were studying full-fledged in the morning. However, 35 per cent of eleventh and 29 per cent of twelfth students preferred to study in the evening. Thirty five per cent of twelfth and 34 per cent of eleventh standard students preferred to study till late night. Goodyear (1954) highlighted that, time of the day designated for responsibilities requiring concentration is an important factor in efficient use of time. Most individuals find that they are at their best during certain hours of the day. The hours when the student finds that it is difficult to concentrate on studies can be allocated to personal care and leisure activities.

Study hours per day

Sixty seven per cent of eleventh and 53 per cent of twelfth students contributed 2-4 hours per day for study. However, 30 per cent of twelfth and 18 per cent of eleventh students studied 4-6 hours per day. Only seven percent of twelfth and five percent of eleventh students were spending maximum time of 6-8 hours a day. Research by Misra and McKean (2000),

Polychronopoulou and Divaris (2005), Erkutlu and Chafra (2006) conjointly viewed that the pressure to perform well in the examination or test and time allocated makes academic environment very stressful. School administrators, for good results, put pressure on teachers to extract good performances from their students. Teachers, in turn, constantly reinforce the importance of doing well in school. Outside of school hours, many students take private tutorial classes. Cross-cultural studies indicated that at home middle-class high school students in India spent more time doing homework (4-5 hours a day) than their counter parts in other countries such as Japan (2-3 hours a day) or Korea (3 hours a day) (Lee and Larson, 1996). This may be one of the reasons for causing stress among the students.

4.4.4. Planning of time for study

Goodyear (1954), opined that time tends to be nebulous resource which slips away so rapidly that many individuals are unaware of where it has gone. For this keeping a record of one's use of time for a short, reasonably typical period, is excellent point at which to begin serious consideration of time management. The managerial process is continuous beginning with plans for the attainment of goals; followed by actions based on these plans; keeping records of the plan in action; and making an evaluation in the light of goals and values, that leads to new plans. Pattern of time plan for study by the selected students is given in Table 10 below.

Table 10: Planning of Time for Study by Selected Students

Pattern of time plan for study	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Prioritization given for time plan						
Yes	191	38	212	42	403	40
No	309	62	288	58	597	60
Procrastination of study						
Yes	353	71	362	72	715	72
No	147	29	138	28	285	28
Perception towards organized time table						
Must do	197	39	208	43	405	41
Nice to do	195	39	168	33	363	36
Not necessary	108	22	124	24	232	23
Leisure time companion						
Family	211	42	231	46	442	44
Friends	267	53	247	49	514	52
Neighbors	22	5	22	5	44	4

Prioritization given for time plan

The form used for time schedule is a matter of choice. For one who is not congenial to details, a simple statement of what is to be done and when it is to be done is sufficient. The results reveal that 62 per cent of eleventh and 58 per cent of twelfth students did not use a prioritized time-table for study. However, it is consoling to note that 42 per cent of twelfth and 38 per cent of eleventh students had a scheduled time-table for study. This practice may help them to bring down their stress level since they would have had a regular pattern of study. Misra and McKean (2000) suggested that offering services by experienced person to manage their time would help the students to plan their time wisely, thus helping to balance non academic and academic life. Effective time management seems to lower academic stress.

Habit of Procrastination

Procrastination is the action of delaying or postponing something (https://dictionary.cambridge.org/). Majority 72 per cent of twelfth and 71 per cent of eleventh standard students postponed their study related work. Completing and submitting assignments and science records on time mostly left higher secondary science students to postpone their study related schedule.

Perception towards time table

Forty three per cent of twelfth and 39 per cent of eleventh students felt that an organized and must do time-table was required for study. The percentage of students who felt that it would be nice if time-table was followed were 39 per cent of eleventh and 33 per cent of twelfth respectively. One-fourth (24 per cent) of twelfth and 22 per cent of eleventh students felt that time-table need not be compulsorily followed, since they would have felt following the timetable strictly may cause stress in them.

Leisure time companion

Leisure is a free time after the practical necessities of life have been attended to. Leisure is the time which one uses as he/she pleases. It could be noted from the study that 53 per cent of eleventh and 49 per cent of twelfth students spent their leisure time with their friends. Forty six per cent of twelfth

and 42 per cent of eleventh students preferred to spend leisure time with their family members. An equal amount of (five percent) both the class students spent their leisure time with other members in their neighborhood. Larson et al. (2000) made an exclusive study on Indian youth and found that Indian adolescents spent more time with their family and less time with their peers than youth in the United States.

4.4.5. Time spent towards various other activities

Table 11 and Figure 7 gives information on time spent towards various other activities by selected students. The daily and weekly time and activity pattern of students reflects the interests, work habits and personal needs of the family.

Tuition classes / combined study

Thirty one per cent of eleventh and 27 per cent of twelfth admitted that they could not spare time for tuition or do combined study since they had to complete the academic work given in the schools. It could be inferred from the survey that 47 per cent of eleventh and 39 per cent of twelfth students could contribute some time to attend tuition and do combined study. Thirty four per cent of twelfth and 22 per cent of eleventh students revealed that they could give adequate time to attend tuitions and do combined study.

Assignments and homework

From the data, it was clearly evident that 53 per cent of the selected students of eleventh and 50 per cent of twelfth students could spend some time to complete assignments and homework on time. Thirty nine per cent of eleventh and 38 per cent of twelfth students could spend adequate time to complete assignments and home work on time. Only 12 per cent of twelfth and eight per cent of eleventh students were not able to complete assignments on time, since they could not spare time towards the completion of assignments. Students with important papers, projects or other assignments due on a date often become anxious as the due date approaches. Lesser the work a student had done on an assignment more was the anxiety they experienced (Sharma and Vijay, 1999).

Table 11: Time Spent towards Various Other Activities by Selected Students

Time spent	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Tuition / Combined study						
No time	153	31	135	27	288	29
Some time	236	47	196	39	432	43
Adequate time	111	22	169	34	280	28
Assignments and homework						
No time	40	8	61	12	101	10
Some time	266	53	251	50	517	52
Adequate time	194	39	188	38	382	38
Recreation						
No time	59	11	87	17	146	14
Some time	258	52	279	56	537	54
Adequate time	183	37	134	27	317	32
Relaxation						
No time	41	8	55	11	96	10
Some time	246	49	266	53	512	51
Adequate time	213	43	179	36	392	39
Outdoor games with friends						
No time	134	27	185	37	319	32
Some time	224	45	207	41	431	43
Adequate time	142	28	108	22	250	25
Creative activities / Exercise / Yoga / Meditation						
No time	196	39	242	48	438	44
Some time	226	45	208	42	434	43
Adequate time	78	16	50	10	128	13

Recreation

More than half (56 per cent) of twelfth students and 52 per cent of eleventh could spend some time for recreation such as watching TV, playing computer games and play stations. Thirty seven per cent of eleventh and 27 per cent of twelfth could allocate adequate time for recreation activity as they felt that it helped them cope with academic stress. Since they felt they have greater demand on time and spending time on recreational activities as a waste 17 per cent of twelfth and 11 per cent of eleventh did not have any sort of recreation activities in their daily time plan.

Relaxation

Fifty-three per cent of twelfth standard students and 49 per cent of eleventh students spent some time with family to relax. Forty three per cent of eleventh and 36 per cent of twelfth standard students could allocate adequate time for relaxation. However 11 per cent of twelfth and eight per cent of

eleventh standard students did not have any sort of relaxation activities in their daily time plan due to greater time demands.

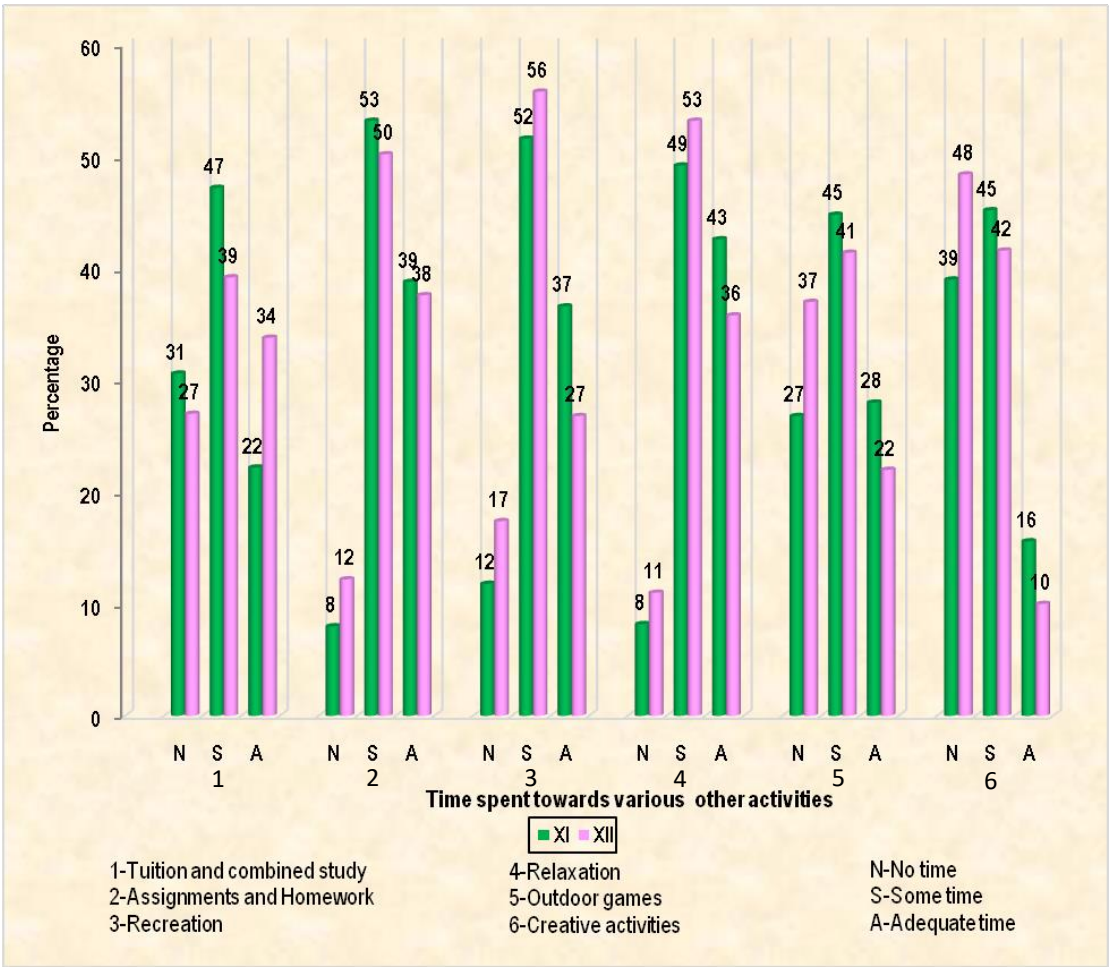

Figure 7: Time Spent towards Various Other Activities by Selected Students

Outdoor games with friends

Forty five per cent of twelfth students and 41 per cent of eleventh standard students could spend some time with friends and play outdoor games while 28 per cent eleventh and 22 per cent of twelfth standard students could spend adequate time on outdoor activities. Thirty seven per cent of twelfth and 27 per cent of eleventh students could not spare time for outdoor games. Time is the most perishable of all the resources. Students face many problems because of its limitation. Once they start realizing the scarcity of this resource they would attempt to improve on time management.

Creative and physical activities

Sixteen per cent of eleventh and 10 per cent of twelfth students spent adequate time on creative activities and physical activities like exercise, yoga and meditation. It was saddening to understand from the Table that 48 per cent of twelfth and 39 per cent of eleventh students did not give time for any sort of creative activities and physical activities in their daily time plan while 45 per cent of eleventh and 42 per cent of twelfth students spent only some time for creative activities and physical activities. Hankey and Kumari (2012) in their publication, stressed that yoga has become an accepted means of restoring mental and emotional balance after severe disturbances, even post-traumatic stress disorder. Yoga, its postures (asana), regulated breathing (pranayama), and relaxation exercises help the students to stay alert, relaxed and receptive and significantly reduced stress levels. Hence spending some time on yoga and meditation may help the students to keep down their stress level and improve their health condition.

4.4.6. Types of fatigue and its symptoms experienced

Energy is always combined with other resources in its allocation and use. Unlike time, quantitative aspects of this resource vary with individuals. When certain measure of energy is gone, nothing can bring it back again unless adequate rest is taken. Time and energy are closely related and supplement each other. It is possible to have plenty of time but no energy because of fatigue. Also, students' ambitions or goals can demand more than the time available to accomplish them. Their parents, experienced friends and other capable advisors will be ready to extend help in estimating the time and energy needed to achieve their ambitions. By learning to recognize the relationship between time and energy students can judge their own capabilities. Hence organizing time will help the students to accomplish most of their goals. Table 12 and Figure 8 shows the types of fatigue experienced by the selected students.

Table 12: Types of Fatigue and its Symptoms Experienced by Selected Students

Type of fatigue	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Physiological fatigue						
Never	38	8	40	8	78	8
Sometimes	285	57	268	54	553	55
Often	177	35	192	38	369	37
Psychological fatigue						
Never	198	40	195	39	393	39
Sometimes	235	47	213	43	448	45
Often	67	13	92	18	159	16
Visual fatigue						
Never	77	15	64	13	141	14
Sometimes	255	51	231	46	486	49
Often	168	34	205	41	373	37
Lack of Leisure						
Never	165	33	158	32	323	32
Sometimes	266	53	254	51	520	52
Often	69	14	88	17	157	16
Frustration						
Never	110	22	123	25	233	23
Sometimes	287	57	254	50	541	54
Often	103	21	123	25	226	23

Physiological fatigue

It could be inferred from the survey that 57 per cent of eleventh and 54 per cent of twelfth students sometimes felt tired because of physical exertion that led to physiological fatigue. Thirty five per cent of eleventh and 38 per cent of twelfth students felt tired because of physical exertion often. Eight percent of both eleventh and twelfth students admitted that they never felt tired or physically exerted. These results support those of Ongori (2007), Agolla and Awino (2008), who reported that overcrowded lecture halls and inadequate resources, can be institutional level stressors to perform academic work. Erkutlu and Chafra (2006) opines that, when tiring events take place, an individual becomes disorganized, disoriented and therefore less able to cope up, thus resulting in stress-related health problems.

Psychological fatigue

The survey revealed that 47 per cent of eleventh and 43 per cent of twelfth students sometimes felt mentally exerted which led to psychological fatigue. Forty per cent of eleventh 39 per cent of twelfth students never felt any sort of mental exertion. However, 18 per cent of twelfth and 13 per cent of eleventh students admitted that they often experienced psychological fatigue.

Visual Fatigue

Study revealed that 51 per cent of eleventh and 46 per cent of twelfth standard students sometimes felt visual fatigue due to the strain caused by reading continuously. Forty one per cent of twelfth and 34 per cent of eleventh students felt visually fatigued often which made them lose their interest in studies. Only 15 per cent of eleventh and 13 per cent of twelfth students admitted that they never experienced visual fatigue.

Leisure

It was found from the study that 53 per cent of eleventh and 51 per cent of twelfth students sometimes felt that they lack leisure. However, 33 per cent of eleventh and 32 per cent of twelfth students never felt that way. Seventeen per cent of twelfth and 14 per cent of eleventh students admitted that they felt tired often due to lack of leisure.

Frustration

It is inferred that 57 per cent of eleventh and 50 per cent of twelfth students sometimes felt frustrated due to psychological fatigue. Twenty five per cent of twelfth and 22 per cent of eleventh students expressed that they never felt frustrated. While 25 per cent of twelfth and 21 per cent of eleventh students admitted that they felt frustrated often due to academic pressures.

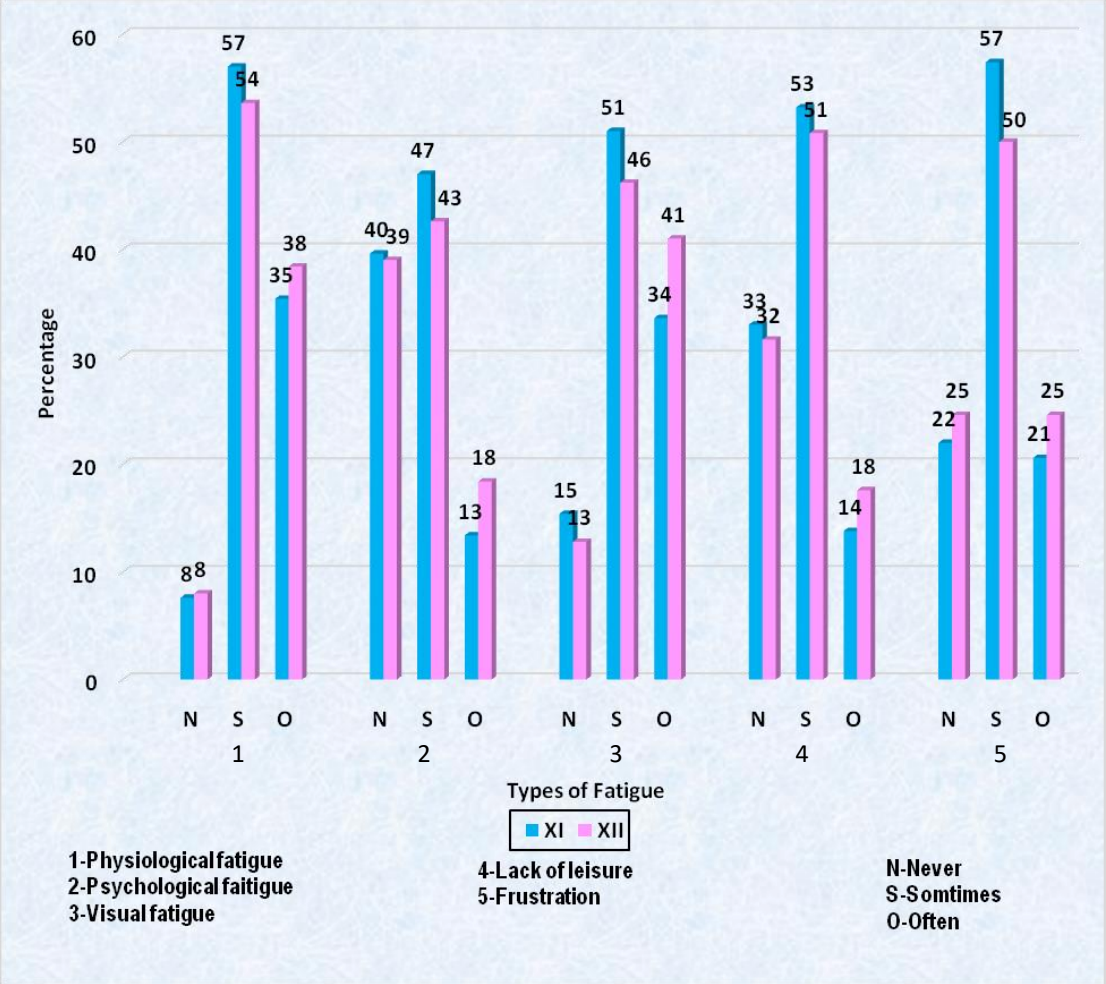

Figure 8: Types of Fatigue and its Symptoms Experienced by Selected Students

In spite of the piling up of academic activities 58 per cent of eleventh and 55 per cent of twelfth students revealed that sometimes they also felt relaxed and energetic. Twenty four per cent of eleventh and 22 per cent of twelfth students felt relaxed and energetic often.

4.4.7. Financial assistance received from parents

Among all the resources that are available to an individual, the most important one is money. Generally, the students are given pocket money by their parents to meet out the unanticipated expenditure while anticipated expenditure will be generally met by the parents. Sometimes the demand for money causes stress among the students. The study by Fairbrother and Warn (2003) identified that lack of pocket money can also lead to academic stress. Table 13 and Figure 9a gives the financial assistance from parents towards

academic expenditure of the selected students. Figure 9b shows the amount spent for study materials among selected students.

Table 13: Financial Assistance Received from Parents towards Academic Expenditure by Selected Students

Financial Assistance	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Financial assistance received from parents						
Yes	266	53	239	48	505	51
No	234	47	261	52	495	49
Control on money spent						
Parent control	353	71	328	66	681	68
Do not control	147	29	172	34	319	32
Money spent for coaching class and tuition						
Yes	434	87	392	78	826	83
No	66	13	108	22	174	17
Money spent for books and study materials						
Yes	368	74	379	76	747	75
No	132	26	121	24	253	25
Amount spent for study materials						
Nil	132	26	121	24	253	25
Below Rs 50	136	27	80	16	216	22
Rs 51-100	80	16	118	24	198	20
Above 101	152	31	181	36	333	33

Financial assistance received from parents

On the whole 51 percent of the students received financial assistance in the form of pocket money however the percentage was more among eleventh standard students (53 per cent) when compared to twelfth students (48 per cent).

Control on money spent

It is satisfying to note that 68 per cent of the parents had control over the spending habit of their ward. The percentage was slightly higher (71 per cent) among eleventh than twelfth standard students (66 per cent).

Money spent for coaching class / tuition

Majority (83 per cent) of students expressed that their parents spent lavishly on coaching classes and tuition for the welfare of their children. The percentage was higher (87 per cent) among eleventh standard students and

comparatively less (78 per cent) among twelfth standard students. Results clearly indicate that parents were anxious about the forthcoming board exam and wanted their children to put some extra effort on academics by attending these extra classes. The news titled 'Parents spent 1/3 of income on private tuition for kids" in The Statesman (2009) also informed that private tuition has witnessed a steep increase of 40-45 per cent in the last 5 years as during this period parents, anxious on the future of their children have been spending one-third of their monthly income on out-of-the-classroom-study for their wards. The news report also emphasized on the dependence of majority of students on private tuition for obtaining higher scores.

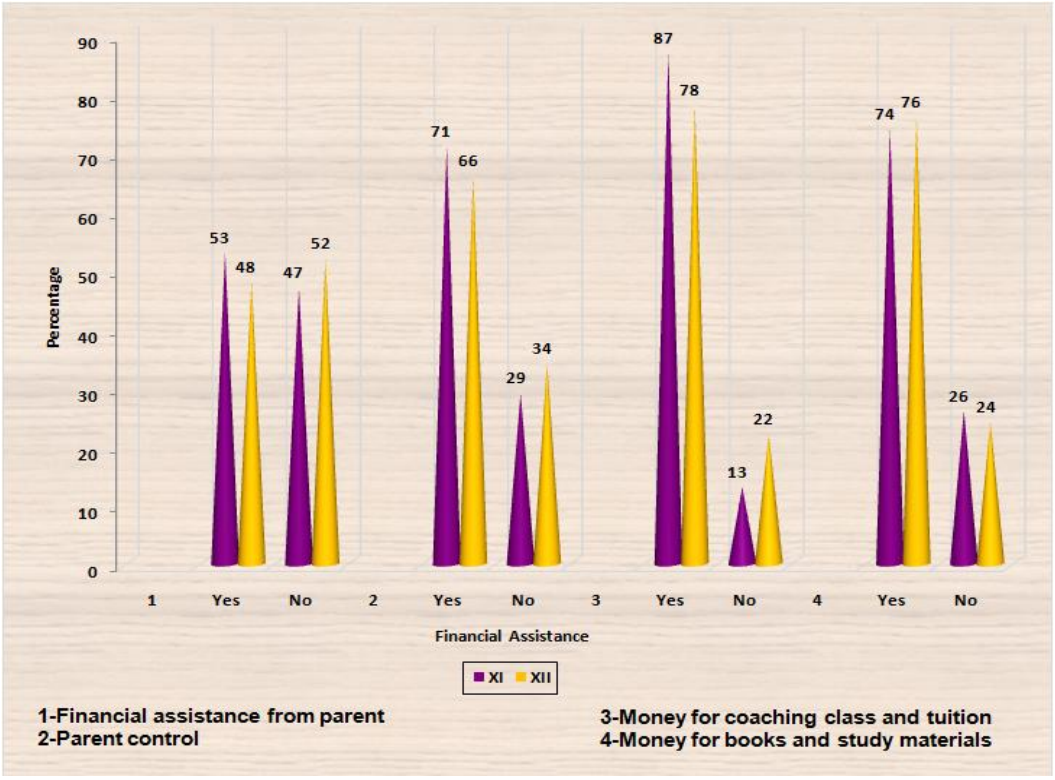

Figure 9a: Financial Assistance Received from Parents towards Academic Expenditure of the Selected Students

Money Spent for Books and Study Materials

Majority 75 per cent of students expressed that their parents, other than for coaching classes and tuition also spent for books and study materials for their children. The percentage was higher (76 per cent) among twelfth standard students as they enthusiastically collected books and other study related materials for exam preparations.

Amount spent for study materials

Thirty three per cent of students spent above Rs.101 from their pocket money on study materials. The percentage was higher (36 per cent) among twelfth than eleventh students (31 per cent).

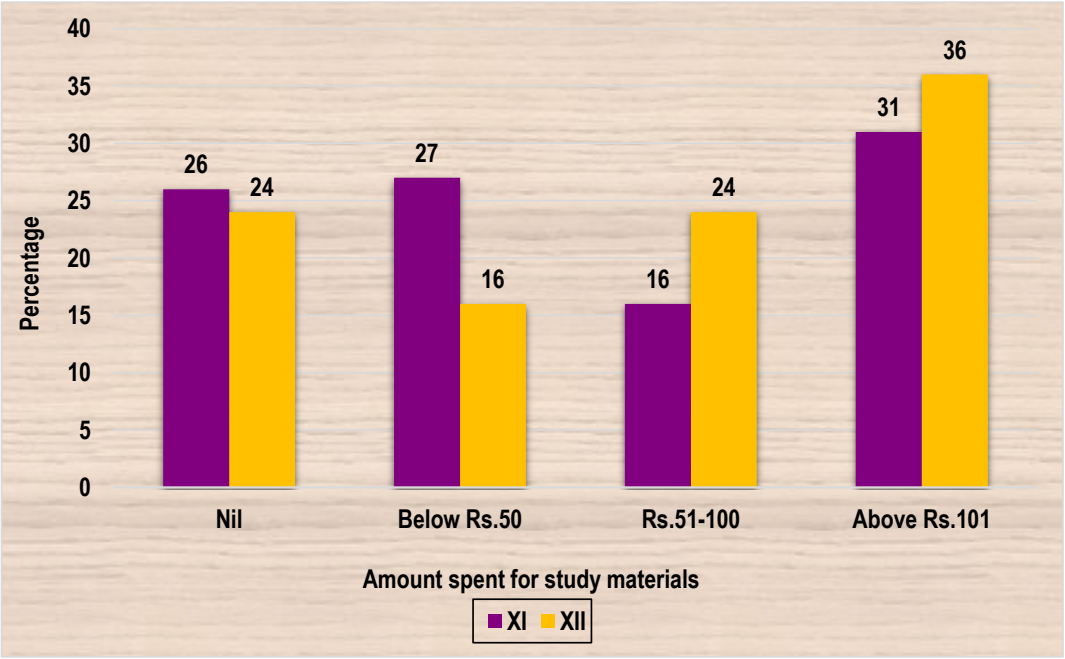

Figure 9b: Amount Spent for Study Materials among Selected Students

4.4.8. Amount spent for non-academic activities

In the academic stream of an individual, eleventh and twelfth standard are considered as a turning point in one's life. Realizing this fact, the parents generally don't mind to spend for their children. The Table below gives information on the money spent for non-academic activities by selected students.

Table 14: Amount Spent for Non-academic Activities by Selected Students

Amount spent	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Food and snacks						
Nil	127	25	112	22	239	24
Below Rs 50	135	27	112	22	247	25
Rs 51-100	57	11	97	20	154	15
Above 101	181	37	179	36	360	36
Recreation						
Nil	251	50	251	50	502	50
Below Rs 50	50	10	38	8	88	9
Rs 51-100	51	10	49	10	100	10
Above 101	148	30	162	32	310	31
Spiritual practices						
Nil	290	58	292	58	582	59
Below Rs 50	93	19	80	16	173	17
Rs 51-100	39	7	63	13	102	10
Above 101	78	16	65	13	143	14
Savings						
Nil	220	44	218	44	438	44
Below Rs 50	108	22	72	14	180	18
Rs 51-100	52	10	65	13	117	12
Above 101	120	24	145	29	265	26

Food and snacks

Thirty six per cent of students spent above Rs.101 from their pocket money on food and snacks per month. The percentage was slightly higher (37 per cent) among eleventh than twelfth students (36 per cent). This may be because the twelfth standard students had more time constraint when compared to eleventh students.

Recreation

Fifty per cent of selected students irrespective of classes didn't spend any amount from their pocket money on recreation due to limitation of time. This could be because of the reason that they were mostly spending time on study related work and if at all they went out it was their parents to spend on recreation related activities and the students did not spend much from their pocket. However, 32 per cent of twelfth and 30 per cent of eleventh students spent above Rs.101 on recreational activities.

Spiritual practices

More than half (59 per cent) of the selected students did not spend any amount from their pocket money on spiritual practices like offerings in places of worship of their favorite God. This shows that they believed in hard work and not just offerings as part of prayers would fetch them marks.

Savings

It is heartening to note that the selected students also tried to save their pocket money. Irrespective of the classes they pursue except 44 per cent of the selected students, others saved certain amount from their pocket money.

Comparison of resource availability between eleventh and twelfth students

Table 15 shows the comparison of mean, standard deviation and't' value of resource availability between eleventh and twelfth students.

Table 15: Comparison of Resource Availability between Eleventh and Twelfth Students

Resource availability	Class	N	Mean	Standard Deviation	Std. Error Mean	't' value	p value
Time spent for studies	XI	500	23.79	4.189	0.187	3.899**	0.000
	XII	500	24.85	4.406	0.197		
Time spent for various other activities	XI	500	6.93	2.163	0.097	5.809**	0.000
	XII	500	6.17	1.992	0.089		
Energy - Types of fatigue experienced	XI	500	6.81	2.485	0.111	1.657 NS	0.098
	XII	500	7.09	2.776	0.124		
Financial assistance from parents	XI	500	2.33	1.012	0.045	0.684 NS	0.494
	XII	500	2.29	1.021	0.046		
Money spent on non-academic activities	XI	500	6.22	4.556	0.204	1.840 NS	0.066
	XII	500	6.73	4.344	0.194		

** Significant at p<0.01 level, NS Not Significant

The computed value indicates that there existed a significant difference in time spent for studies and time spent for various activities at p<0.01 level and regarding types of fatigue, financial assistance and money spent on non-academic activities there exist no significant difference between eleventh and

twelfth students. **Hence, Hypothesis 1 which states that there would be a significant difference in resource availability between eleventh and twelfth standard students is partially accepted.**

4.5. Foods Opted by Selected Students

Eating habits in the India are mainly based on tradition and culture. However, students take food habits for granted and now-a-days consumption of fast food and junk food has significantly increased. Poor food habits can also affect the mind and cause symptoms of stress. Maintaining good health is a priority and is important because, if healthier there will be more energy. Eating well can make a person strong and healthy. If too much fat, sugar and calories are taken human body operates at reduced power. Hence, healthier choices about what to eat can lead to more energy, good health and a better quality of life. Some important rules of healthy intake are eating a variety of fruits; maintaining a healthy weight; choosing a diet low in fat and cholesterol; taking plenty of vegetables, fruits and grain products; and moderate use of sugar and salt. Table 16 present the foods opted by selected students.

Table 16: Foods Opted by Selected Students

Food preferences	Class wise distribution of students * (In Percent)				Total N=1000	
	XI (N=500)		XII (N=500)			
	Yes	No	Yes	No	Yes	No
Variety in food	82	18	82	18	82	18
Simple and light meal	77	23	78	22	78	22
Drink plenty of water	74	26	78	22	76	24
Smart Snacking	77	23	72	28	74	26
Regular breakfast	68	32	66	34	67	33
Fried food	63	37	68	32	66	34
Eating out	66	34	64	36	65	35
Fibre in food	60	40	62	38	61	39
Aerated drinks	58	42	54	46	56	44
Junk food	54	46	51	49	52	48
Under eating	21	79	29	71	25	75
Over eating	26	74	23	77	24	76
Starving / fasting	17	83	19	81	18	82

*Multiple responses

Variety in food

It is evident from the Table that irrespective of class, majority (82 per cent) of the selected students preferred variety in food that included food from all the five food groups. College Nutrition Handouts (2005), informed that food rich in protein, whole grains with complex carbohydrates, fibre, bountiful antioxidants, refreshing fruits and vegetables makes the plate look colorful, it adds variety and curbs the level of stress hormone – cortisol and help tame exam anxiety. Living entirely on snack foods should be avoided as they usually won't energize as much as a real meal. This is the time for frozen entrees, bean soups, peanut butter, cold cut sandwiches and other convenient foods.

Simple and light meal

Seventy-eight per cent of the selected twelfth students preferred meals that are simple and light. Nowadays students and the parents are very much aware that food rich in saturated fat and cholesterol as in fried food, junk food and processed food with lot of sodium, high calorie snacks and greasy sugary desserts could make them sluggish, sleepy and prevent them from concentration. Hence the parents take efforts to give their children the right food they require.

Drinking water

It is evident from the Table that majority of the selected students drank plenty of water to stay hydrated. The percentage was slightly higher (78 per cent) among twelfth than eleventh (74 per cent) students. It is an established fact that information flows more freely between brain cells when students are well hydrated with steady intake of water and fruit juices throughout the day. Adequate levels of fluid intake are crucial to maintain vital physiological functions. Adverse effects of reduced fluid intake on physical performance have long been known (Grandjean and Grandjean, 2007; Lieberman, 2007).

Smart snacking

Snacking, a common adolescent trait is considered to be an important source of nutrition to the growing youngster. Adolescents spend a substantial part of their day in school and require snacks to fuel them through the day. It was really encouraging to note from the Table that 74 per cent of the students

followed smart snacking. The students included crunchy fresh vegetable or fruit salad or cup of boiled pulses that refreshed their body and kept them alert and awake, the percentage was higher (77 per cent) among eleventh than twelfth (72 per cent) students. D'souza and Rodrigues (2015) pointed out the recommendation by Nutritionists that eating a mid-morning and an evening snack to replenish energy stores and schools have a short break to enable students refuel mid-day.

Regular breakfast

Study findings by Sivaramakrishnan and Kamath (2012) correlated with the research findings and affirmed that breakfast is the most important need of the day. It is evident from Table 16 that above 65 per cent of the selected students compulsorily ate breakfast daily. Research findings with regard to breakfast by Liu et al. (2013) showed that children who regularly have breakfast had significantly higher full scale, verbal and performance IQ test scores compared to children who 'sometimes have breakfast'.

Fried food

Fat and sugar in combination can produce a dopamine-driven surge of intense pleasure in people with a propensity for addictive behavior. On the other side, it must be noted that they are hazardous to health too. High fat content, particularly cholesterol, sugar and salts have their adverse effects on health. Soaring calorie content with sugar can lead to obesity. Though students were aware of smart snacking, 68 per cent of the selected twelfth students showed their preference for fried food like samosa, bajji for their evening snack however the percentage was lesser (63 per cent) among eleventh students.

Eating out

Eating outside home has been identified as making an important contribution to adolescents' food choices (Fietzgerald et al, 2010). Study by Mallick et al (2014), revealed the fact that food consumed at home had better density of micronutrient than food consumed outside. Sixty six per cent of the selected eleventh students occasionally preferred eating out in canteen, restaurants or hotels however the percentage was lesser (64 per cent) among twelfth students.

Fiber in food

Sixty two per cent of the selected twelfth students made it a point to include fiber in their diet that helps to add bulk and give them a satiety feel, however the percentage was slightly lesser (60 per cent) among eleventh students. A high level of fiber intake has health-protective effects and disease-reversal benefits. Persons who consume generous amounts of dietary fiber, compared to those who have minimal fiber intake, are at lower risk for developing hypertension, obesity, and certain gastrointestinal diseases later in their life (Anderson and Baird, 2009).

Aerated drinks

Our brain is the organ in affecting how we think and move. Inclusion of junk food, aerated drinks and caffeinated drinks late in the evening could disrupt sleep patterns. A glass of warm milk would induce sleep; ease anxiety and mood swings which are common among exam takers. Heavy meals result in disturbed sleep. It is advisable to have eight hours of sound sleep that helps mind to focus and recall. Unexpectedly 58 per cent of eleventh students admitted that they sometimes included aerated drinks along with their evening snacks. The percentage was lesser (54 per cent) among the selected twelfth students.

Junk food

Fast food and junk food are very low in nutrients; instead they are full with colorings, flavors and preservatives. As a result of nutritional and lifestyle transition due to globalization, many of the adolescents modify their normal dietary pattern and follow disturbed eating behaviors which affect their nutrition status (Mishra and Mukhopadayay, 2010). Fast food is high in fat content. Its regular intake can increase body mass index (BMI) and result in weight gain. An individual's mood and attention are highly influenced by the food taken, which means it will affect the concentration. It is preferable to eat home cooked food during exams, as it is safer, clean and hygienically prepared to prevent complications like stomach infection and acidity (Arya and Mishra, 2013). The study showed that 54 per cent of surveyed eleventh students preferred to eat junk foods like pizza and burger, however, the

percentage was slightly lesser (51 per cent) among twelfth students due to demand on time to spend for such activities.

Under-eating

A study relating to dietary patterns of adolescents found that the food habits during adolescence were affected by the opportunities they had in eating with peers away from their families (Trusswell and Hill, 2002). Seventy nine per cent of eleventh students revealed that they did not eat less due to preparation for test/exam. However, the percentage was lesser (71 per cent) among twelfth students.

Over-eating

Swaminathan (2005) stated that a person whose body weight is higher than normal by 15-20 per cent is considered as overweight and by 25 per cent is considered as obese. Obesity has increased in both developed and developing countries although the pace and pattern differ from country to country. It has profound public health consequences, as seventy per cent of the overweight children become overweight adults. However, it was observed from the Table that 77 per cent of the twelfth students were found to be aware of the fact that over-eating can result in weight gain and therefore with the guidance of their parents they carefully planned their meals with a wise choice to ensure that right nutrients are taken by them in right quantity. However, the percentage was lesser (74 per cent) among eleventh students.

Starving / Fasting

Study findings by Pelican et al. (1985), claimed that teachers report hungry children are more likely to be apathetic, inattentive, and disruptive. The Table informs that 83 per cent of the selected eleventh students surveyed know this fact and never starved or skipped their meal however the percentage was slightly lesser (81 per cent) among twelfth students. They were aware that good nutrition from a balanced diet have positive impacts on their body and brain to make them stay sharp and focused.

The results of comparison of foods opted by eleventh and twelfth students is given in Table 17.

Table 17: Comparison of foods opted by eleventh and twelfth students

	Class	N	Mean	Std. Deviation	Std. Error Mean	't' value	p value
Food preferences	XI	500	6.75	1.923	.086	0.318 NS	0.751
	XII	500	6.79	1.856	.083		

NS - Not Significant

Table above shows the mean, standard deviation and't' value of foods opted by eleventh and twelfth students. The computed value indicates that there is no significant difference in foods opted by eleventh and twelfth students.

4.6. Supportive network accessible for selected students

The results of this part of the study, is discussed under the following headings.

4.6.1. Parent's involvement in academic performance

4.6.2. Accessible moral support from supportive network

4.6.3. Accessible psychological support from supportive network

4.6.4. Accessible academic guidance from supportive network

4.6.1 Parent's involvement in academic performance

Research evidenced by Ramalingam (2005), established that the most powerful way that parents were involved in their child's education was by structuring the study environment to encourage academic achievement. They also reduced professional obligations and made lifestyle changes to be more available to their children and to create a distraction free study environment. Some students reported that whenever they took a break from study to engage in leisure activity, their parents urged them to return to their work. Parents often rationalized the pressure they were exerting by reminding their children that their behavior was 'for their own good'. Parents also suggested that their insistence on constant study would pay off in terms of exam performance, college admission, and eventual professional success. While the students who were exposed to this pressure acknowledged that their

parents were looking out for their best interests, most of them did not agree with their parents. They felt they could not possibly be studying any more than they already were, and resented their parents for implying that they needed to be studying more. At some level, however, this parental rationalization was largely accepted by the students, even when they resented or felt stressed by parental pressure, because they perceived that their parents' behavior arose solely out of concern for their future wellbeing. Table 18 indicates the parent's involvement in academic performance of the selected students.

Table 18: Parent's Involvement in Student's Academic Performance

Parent's Involvement	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Involved in school work						
Yes	421	84	413	83	834	83
No	79	16	87	17	166	17
Rescheduled time						
Yes	260	52	268	54	528	53
No	240	48	232	46	472	47
Created a distraction free study environment						
Yes	277	55	326	65	603	60
No	223	45	174	35	397	40
Involved in career decisions						
Yes	351	70	344	69	695	70
No	149	30	156	31	305	30
Students handling parent for differed opinion on career choice						
Convince Parents	324	65	342	68	666	67
Listen to Parents	129	26	98	20	227	23
Any other method	47	9	60	12	107	10

Parent involvement in school work

This part deals with the extent of involvement of parent in school related work. The term 'parental involvement' means the participation of parents in regular, two-way, and meaningful communication, involving in student academic learning and other school activities, in decision-making on advisory committees to assist in the education of their child. Larson et al. (2000) opined that Indian parents are known to be deeply involved in their children's education. It's a simple fact of life that parents do worry about their kids and stress might be somewhat greater during exam time. Being involved in children's education helps the child to do well in school. Parents can be

engaged at different levels and simple activities like reading a book together; helping with homework and emphasizing the importance of school and academic success which can and does make a difference (Parent Engagement Committee, 2011). From the Table, it was really encouraging to note that majority 83 per cent of parents involved themselves in school work. However; the percentage was almost the same (84 per cent) among eleventh than twelfth students (83 per cent). Parental involvement gets intensified when their children are in their final years of school. Many parents go to the extent of creating a study setting with few distractions so that their children can focus on their academic work. They do this by compromising to their own lifestyles or making sacrifices (Henderson and Berla, 1994).

Hill and Tyson (2009) quoted a recent meta-analysis of parental involvement in school life that was more strongly associated with high academic performance for middle schoolers than helping with homework. Hill and Taylor (2004) stated that teachers of students with highly involved parents tend to give greater attention to those students, and they are more likely to identify at earlier stages problems that might inhibit student learning.

Type of parental involvement

Eighty two per cent of the parents of the students supported their children by providing oral advice and kept close contact with their children; however, the percentage was higher (84 per cent) among twelfth than eleventh (80 per cent) students. This correlated with other findings which stated that social support in the form of emotional support, advice, assistance and guidance reduces stress and improved coping skills (Hair et al., 2002).

Rescheduling of Time and Lifestyle Changes by Parents

Parents need to reschedule their time with their child's exams and try to complete all their household chores on time, which otherwise may easily cause tension. It is evident from Table that 54 per cent of twelfth and 52 per cent of the parents of eleventh students rescheduled their time plan as their child's board exam approached. By rescheduling their time and work schedule, parents make sure that students stick to their goals and targets.

Creating a distraction free environment

Report submitted to UNICEF by Chimombo et al. (2000) highlighted that if children were to spend too much of their time offering their work at the household, it is likely that their school attendance will be poor resulting in low achievement. Indian parents are deeply involved in their child's education. They try to create an environment in which academic achievement is valued. An interesting revelation from the study show that 65 per cent of twelfth and 55 per cent of eleventh standard student's parents excused their children preparing for board examination from house hold work as they felt it could be a burden for them. They tried to provide a suitable environment for them that will not distract the students from their studies.

Career decision by parent

Mandara (2006) informed that warm, responsive parenting in adolescent stage leads to success in school and positive social and emotional outcomes. Parents have a significant influence on the academic stress experienced by students as well. This finding suggested that the parental system was the most influential microsystem with which Indian adolescents interact. Since the parents consider their children to be unaware of the future prospects of various careers available they take a decision on this aspect and force their ward to take up the career what they have decided. It was observed from Table that 70 per cent of eleventh and 69 per cent of twelfth student's parents decided their child's future career.

Parents' wish on career choice

Results seen from the table inferred that parents of 78 per cent of eleventh and 76 per cent of twelfth students hoped that their children will take up a professional degree in future. Study by Rao (2014), also claimed that admission to courses in Medicine, Engineering and Management were the most preferred choices for parents as these qualifications were seen to guarantee future job prospects. Sengupta (2007) stated that all the female participants in a study intended to work upon completing their education, and their parents, furthermore, encouraged them to do so, to be financially independent.

Students' wish on career choice

When compared to the parents the students had a different choice regarding their career. An astonishing fact observed from the study was that 90 per cent of the selected students did not prefer to take up a professional degree in future. Some students even felt that their placement in a famous institution would be a matter of pride for their parents. Several students reported that their parents would be disappointed if they did not perform well in their exams or be accepted to a prestigious institution. Consistent with other studies conducted in India, the students felt that they would be letting down their parents if they didn't succeed in their exams or college admission (Pasmantier, 2005). Hence to satisfy their parents they work hard which causes stress among students.

Students handling parent for differed opinion on career choice

Enquiring about how students would handle the choice of their carrier if opinion of their parent differed, 68 per cent of twelfth and 65 per cent of eleventh students reported that they will convince their parents to accept career of their choice and would express that, it is their future dream and request them not to persuade further. Parents encouragement of a feeling of independence thus seems to be a precondition for lowering children's level of test anxiety and trait anxiety, and consequently for enforcing their sense of self-efficacy and self-confidence.

Table 19 indicates the association between parent's wish against student's wish on career choice and students handling them for differed opinion.

Table 19: Involvement in Career Choice by Parent and Student

Involvement in career choice	Class wise distribution of students						Chi-square value	
	XI		XII		Total		XI	XII
	N=500	%	N=500	%	N=1000	%		
Parent's wish								
Professional Degree	390	78	380	76	770	77	23.554**	30.282**
Non-Professional Degree	19	4	16	3	35	4		
Any Course	91	18	104	21	195	19		
Student's wish								
Professional Degree	59	12	49	10	108	11	20.931**	35.733**
Non-Professional Degree	25	5	25	5	50	5		
Any Course	416	83	426	85	842	84		

** Significant at p<0.01 Level

Chi-square test was used to determine the association between parent's wish on career choice and student handling them for differed opinion. When parent had different opinion of career for their ward the students convinced their parents effectively by explaining about their passion and desires. When statistically analyzed a high significant difference was found at $p<0.01$ level. Greater was the impact among the twelfth standard students (30.282) than eleventh standard students (23.554). Hence we can conclude that the twelfth students handled their parent's differences of opinion on career choice effectively to pursue a career of their desire in the very near future to get admission into a college of their expectation.

Chi-square test was used to find the association between student's wish on career choice versus hours spent in school. Analysis shows high significant association at $p<0.01$level among the selected students. Value for twelfth (35.733) was more compared to eleventh (20.931) standard students, proved that twelfth standard students work much hard to get admission into reputed colleges and so spent more hours for study.

Academic Comparisons

It was found from the study that 53 per cent of the student's parents do not compare their children with others. However, 37 per cent of eleventh and 29 per cent of twelfth student's parents compared their child's academic performance with their friends. Nineteen per cent of twelfth and 10 per cent of selected eleventh students were compared with their relatives on academic performance by their parents and it caused stress in them. In Indian families, it is common practice to compare the academic performance of the child with that of older siblings, cousins, and friends. Although the comparisons may begin in younger years, it intensifies in the high school. Schoolwork was also a source of severe discomfort which caused students to feel lonely, disappointed and worried (Verma et al., 2002). Study by Jahedi and Soheyla (2012) emphasized that students should be encouraged to compare their progress to their personal standards, not with the performance of others. In the light of this, instruction should be as individualized as possible.

Table 20 shows mean, standard deviation and 't' value of parent involvement in student's academic performance between eleventh and twelfth standard students.

Table 20: Comparison of Parent Involvement in Student's Academic Performance between Eleventh and Twelfth Students

Parent involvement	Class	N	Mean	Std. Deviation	Std. Error Mean	't' value	p value
	XI	500	11.58	2.325	.104	0.380 NS	0.704
	XII	500	11.52	2.498	.112		

NS-Not Significant

The computed' value shown in the above Table indicates that there is no significant difference in the parent involvement in student's academic performance between eleventh and twelfth standard students. **Hence first part of Hypothesis 2 which states that there would be a significant difference in parental involvement between eleventh and twelfth standard students is rejected.**

4.6.2 Accessible moral support from supportive network

Test anxiety is a matter that affects students from all grade levels. Helping students to learn effectively to manage such anxiety that may occur require a full use of abilities and resources, and it requires a true team effort. Hence an active method should be involved in reducing test anxiety for which students, parents, teachers, counselors, and administrators must work together and find solutions.

Parents' should be supportive and reassuring to the children especially when things begin to go wrong. The key fact is to ensure the children that they were well-supported with freedom. Table 21 and Figure 10 illustrate the accessible moral support among the selected students from supportive network.

Table 21: Accessible Moral Support for Students from Supportive Network

Supportive person rendering moral support	Class wise distribution of students * (In Percent)						Total N=1000		
	XI (N=500)			XII (N=500)					
	N	S	O	N	S	O	N	S	O
Parent	3	20	77	2	16	82	3	18	79
Teachers	8	29	63	4	23	73	6	26	68
Friends	8	45	47	10	38	52	9	42	49
Siblings	22	38	40	19	35	46	21	36	43
Grand Parent	28	39	33	28	39	33	28	39	33
Counselor	52	28	20	48	28	24	50	28	22
Relatives	25	56	19	32	51	17	29	53	18

*Multiple responses, N-Never; S-Sometimes; O-Often

It could be clearly seen from the Table that 82 per cent of the twelfth and 77 per cent of eleventh students often depended on their parent for moral support, followed by 73 per cent of twelfth and 63 per cent of eleventh students who depended on their teachers and 52 per cent of twelfth and 47 per cent of eleventh students looked up for their friends for moral support. Moral support from counselors was also sought by 20 per cent of eleventh and 24 per cent of twelfth standard students respectively. Howard and Medway (2004) analyzed how attachment to parents influenced adolescent coping with stress. Adolescents' attachment and feeling of security was positively related to coping through family communication. Even when students are exposed to the same school environment, there will be a variation in the coping strategies employed. In addition to family factors, individual student traits explain variation in coping strategies.

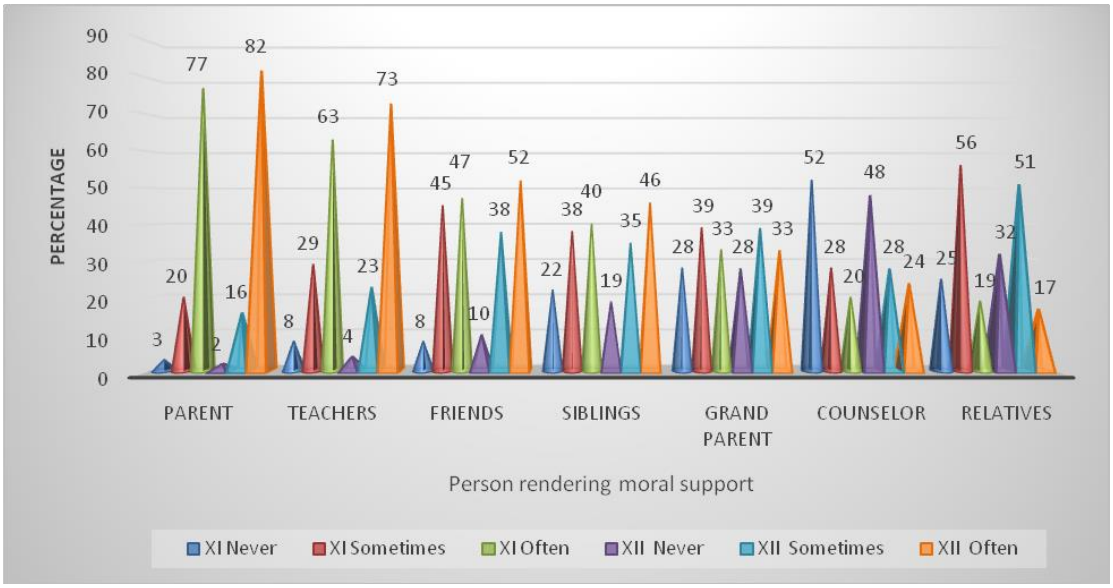

Figure 10: Accessible Moral Support for Students from Supportive Network

4.6.3 Accessible psychological support from supportive network

Parents never give up when a child is well-motivated to get what they want while the end should be worth the price they paid. Amount of encouragement given by the parents will almost certainly be well-received by the students. Hence parents must be reasonable and should not let the encouragement turn into dictating. Study findings by Wolfradt et al (2003) found that perceived parental psychological pressure was positively correlated

with anxiety and depersonalization among youth. On the other hand, perceived parental warmth was associated with active coping, and was negatively correlated with anxiety. Table 22 and Figure 11 show the percentage distribution of accessible psychological support among the selected students.

Table 22: Accessible Psychological Support for Students from Supportive Network

Supportive person rendering psychological support	Class wise distribution of students * (In Percent)						Total N=1000		
	XI (N=500)			XII (N=500)					
	N	S	O	N	S	O	N	S	O
Parent	7	30	63	7	28	65	7	29	64
Friends	14	38	48	13	38	49	14	38	48
Teachers	19	41	40	14	37	49	16	39	45
Siblings	27	36	37	24	38	38	26	37	37
Grand Parent	31	37	32	33	37	30	32	37	31
Counselor	60	25	15	55	25	20	57	25	18
Relatives	39	45	16	41	45	14	40	45	15

*Multiple responses, N-Never; S-Sometimes; O-Often

It could be clearly seen from the Table that 65 per cent of the twelfth and 63 per cent of eleventh students often depended on their parent for psychological support, followed by 49 per cent of twelfth and 40 per cent of eleventh standard students sought to their teachers and a similar 49 per cent of twelfth and 48 per cent of eleventh students looked upon their friends for psychological support. Irrespective of class 45 per cent of students sometimes took psychological support from their relatives. A total of 37 per cent of selected students sometimes reached to their grandparents and siblings for psychological support. Only 15 per cent of eleventh and 20 per cent of twelfth students admitted that they required a counselor for psychological support.

Henderson and Berla (1994) in their study revealed that students with parents who were involved in their school tend to have fewer behavioral problems and better academic performance, and are more likely to complete high school than students whose parents are not involved in their school.

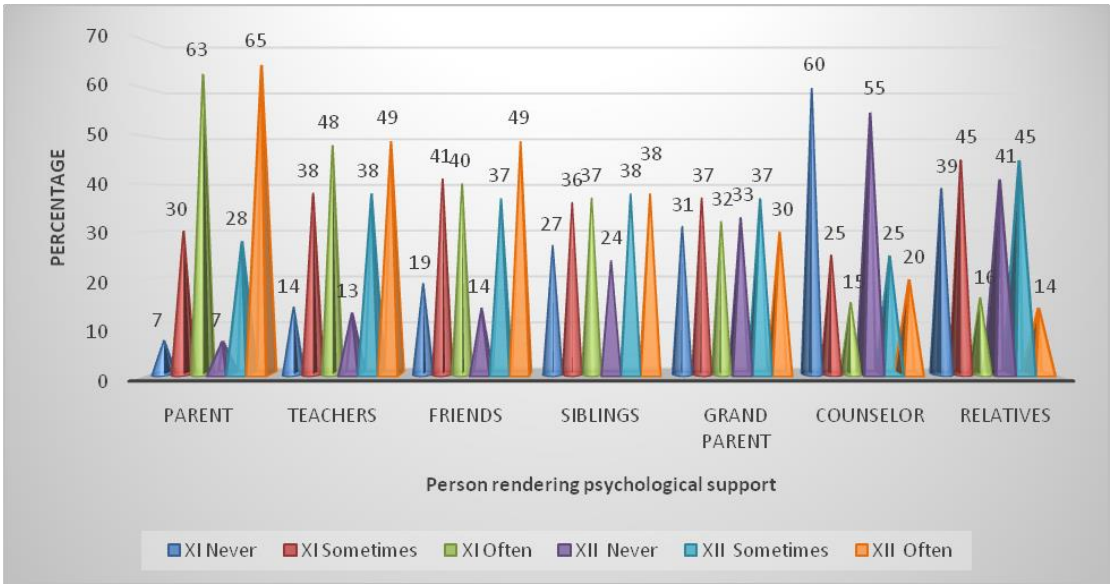

Figure 11: Accessible psychological support for students from supportive network

4.6.4 Accessible academic guidance from supportive network

Parents have a significant influence on the academic stress experienced by the students. While parents are only one of many micro systems that Indian youth operate in, studies have found that Indian youth spent most of their time with their parents, even during adolescence period. They remain close to their parents throughout their school years, and lean on their parents for advice, encouragement and support. These findings suggest that the parental system is the most influential microsystem with which Indian adolescents interact. Table 23 and Figure 12 show the accessible academic guidance among the selected students.

Table 23: Accessible Academic Guidance for Students from Supportive Network

Supportive person rendering academic guidance	Class wise distribution of students * (In Percent)						Total N=1000		
	XI (N=500)			XII (N=500)					
	N	S	O	N	S	O	N	S	O
Teachers	9	24	67	5	17	78	7	20	73
Parent	7	25	68	6	31	63	6	28	66
Friends	16	44	40	15	38	47	16	41	43
Siblings	27	37	36	25	36	39	25	37	38
Counselor	50	28	22	46	30	24	48	29	23
Grand Parent	39	37	24	47	34	19	43	36	21
Relatives	34	46	20	38	45	17	36	45	19

*Multiple responses, N-Never; S-Sometimes; O-Often

The results showed that 78 per cent of the twelfth and 67 per cent of eleventh students often depended on their teachers for academic guidance, followed by 68 per cent of eleventh and 63 per cent of twelfth leaned on their parent while 47 per cent of twelfth and 40 per cent of eleventh students sought to their friends for academic guidance. Forty six per cent of eleventh and 45 per cent of twelfth students sometimes looked upon their close relatives who are knowledgeable and experienced for their academic guidance. Thirty seven per cent of selected students sometimes reached to their grandparents and elder siblings for academic guidance. Fifty per cent of eleventh and 46 per cent of twelfth students admitted that they had never approached a counselor for academic guidance, since they could manage the situation on their own.

Jahedi and Soheyla (2012) affirmed that teachers should inform students of their performances and give personal feedback on a regular basis. Findings of this study revealed that parents have an incredible role in increasing students' motivation and use of learning strategies by them. The influence of the environment outside of school - notably, parental attitudes - on adolescent coping strategies has received some attention in coping literature. High achievement demands may develop stress and the students become tired of the continual pressures and feel that they are un-successful. They can even think they become the scapegoat for parents, community members and relatives. For teachers and school psychologists, these results suggest that academic achievement, study skills and engagement can be increased by tapping into students' interests.

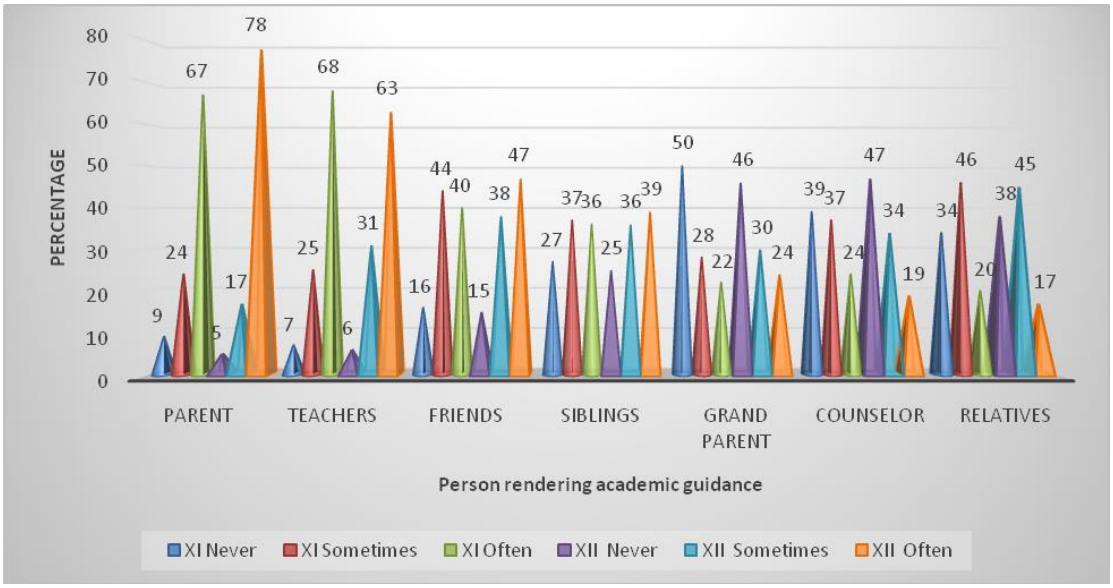

Figure 12: Accessible Academic Guidance for Students from Supportive Network

Findings of the study by Wolfradt et al. (2003) revealed that parents have an important role in increasing students' motivation and use of learning strategies by them.

The result of comparison of accessible support from supportive network between eleventh and twelfth students is given below in Table 24.

Table 24: Comparison of Accessible Support from Supportive Network between Eleventh and Twelfth Students

Nature of support	Class	N	Mean	Std. Deviation	Std. Error Mean	't' value	p value
Moral support	XI	500	8.53	2.627	0.117	1.723 NS	0.085
	XII	500	8.81	2.585	0.116		
Psychological support	XI	500	7.51	3.079	0.138	1.509 NS	0.132
	XII	500	7.79	2.868	0.128		
Academic guidance	XI	500	7.95	2.941	0.132	0.861 NS	0.390
	XII	500	8.10	2.789	0.125		

NS-Not Significant

The study attempted to examine whether there is any significant difference in support network between eleventh and twelfth students. The computed't' value connote that there is no significant difference in the accessible support from supportive network between eleventh and twelfth students. This means the supportive network was made accessible to both eleventh and twelfth students in same manner. **Hence second part of Hypothesis 2 which states that there would be a significant difference in**

accessible support between eleventh and twelfth standard students from supportive network is rejected.

4.7. Satisfaction towards Academic Performance

Parental attitude towards students is an important educational foundation on which academic achievement is dependent. If the parent expresses their negative attitude to their children it may cause stress and anxiety among the adolescent students. Figure 13 represent the details regarding the satisfaction of the parent and the students towards academic performance.

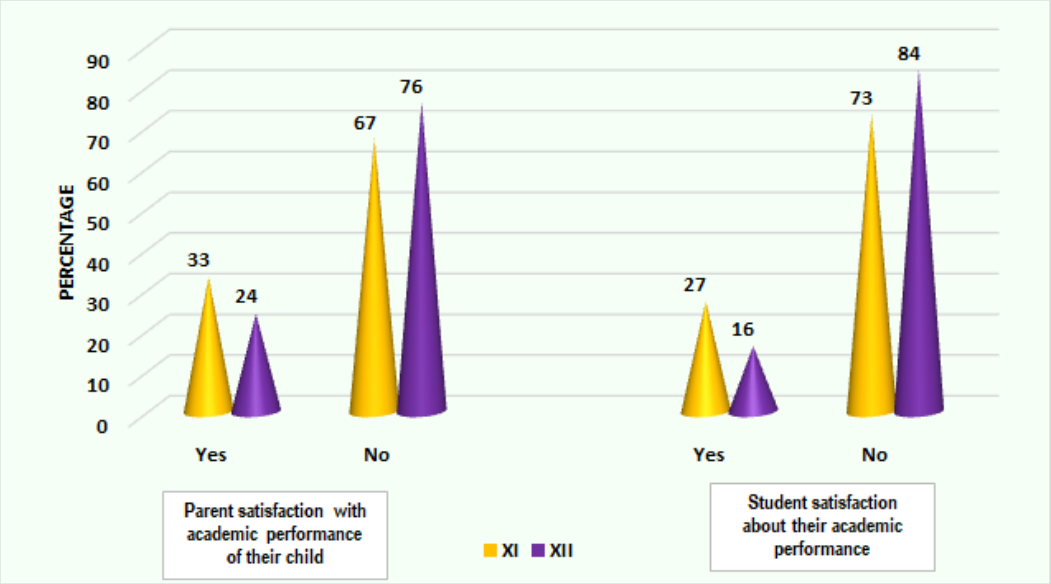

Figure 13: Satisfaction towards Academic Performance

It is observed that the parents of maximum 76 per cent of twelfth and 67 per cent of eleventh students' were not satisfied with academic performance of their children. It is important for the parents to understand that too much of expectations from their ward will increase their stress rather than being a support to the children. Parents' expectations from their children can have a strong influence on their attitude and their behaviors. Hence there is a need for more parental and academic guidance to further enhance students' ability, self-efficacy and their interest (Jahedi and Soheyla, 2012). It could also be inferred that majority 84 per cent of the twelfth and 73 per cent of eleventh students were not satisfied with their own academic performance at school. Studies on goal setting have demonstrated that self-efficacy and skill development are stronger in students who set proximal goals than in those

who set distal goals, because proximal attainments provide evidence of growing expertise. In addition, students who have been verbally encouraged to set their own goals experienced increase in confidence, competence, and commitment to attain those goals (Locke and Latham, 2002).

4.8. Symptoms of Stress Experienced by Selected Students

Stress, is a consequence of or a general response to an action or situation that places special physical or psychological demands, or both, on a person. It is any disruption, change or adjustment in a person's mental, emotional or physical well being caused by an external stimulus, either physical or psychological. The result under this part of the study is discussed under the following headings.

4.8.1. Symptoms of psychological stress experienced
4.8.2. Symptoms of emotional stress experienced
4.8.3. Symptoms of physical stress experienced
4.8.4. Symptoms of behavioral stress experienced

4.8.1. Symptoms of psychological stress experienced

Several causes of test anxiety are related to internal aspects of the student, including self-image, motivation, and attitudes. Specifically, students may experience test anxiety if they have negative self-images and lack confidence in their abilities. Students often develop negative self-images when they experience failures on exams, especially if they feel they didn't receive the grade they deserved. This may translate into heightened anxiety on future exams. Anxiety often occurs without conscious or apparent stimulus, which distinguishes it from fear (Gurian and Miner, 1991). Table 25 shows the symptoms of psychological stress experienced by the selected students.

Table 25: Symptoms of Psychological Stress Experienced by Selected Students

Symptoms	Class wise distribution of students * (In Percent)						Total N=1000		
	XI (N=500)			XII (N=500)					
	N	S	O	N	S	O	N	S	O
State of confusion	19	60	21	22	54	24	21	57	22
Poor concentration	32	55	13	31	53	16	32	54	14
Poor memory	43	49	8	37	53	10	40	51	9
Mind racing	37	50	13	36	51	13	37	50	13
Lack of self -confidence	46	38	16	38	50	12	42	44	14
Insecure feeling due to competition	25	45	30	27	43	30	26	44	30
Unable to perform preferred activity	33	44	23	37	42	21	35	43	22
Daydreaming in class	41	43	16	44	41	15	42	42	16
Feeling of academic pressure due to parent's expectations	33	36	31	28	41	31	30	38	32
Feeling of loneliness	54	34	12	58	32	10	56	33	11
Lack of sense of humour	63	30	7	66	28	6	64	29	7

*Multiple responses, N-Never; S-Sometimes; O-Often

Psychological symptom of stress in the form of confusion was felt sometimes by 60 per cent of eleventh and 54 per cent of twelfth students, this was followed by poor concentration as expressed by 55 per cent of eleventh and 53 per cent of twelfth students, poor memory by 53 per cent of twelfth and 49 per cent of eleventh, mind racing by 51 per cent of twelfth and 50 per cent of eleventh students and lack of self-confidence by 50 per cent of twelfth and 38 per cent of eleventh standard students. Insecure feeling due to competition was experienced sometimes by 45 per cent of eleventh and 43 per cent of twelfth standard students. Other psychological symptoms included students sometimes were unable to perform their preferred activities (44 per cent of eleventh and 42 per cent of twelfth) and sometimes they felt academic pressure due to their parents' high academic expectations (41 per cent of twelfth and 36 per cent of eleventh). Students are the leaders of tomorrow and anything that interferes with their well being should be termed as denying the society their future leaders. These outcomes can be divided into physical violence and psychological abuse among the students (Johns and Menzel, 1999).

4.8.2. Symptoms of emotional stress experienced

Emotions may come along with the physiological reactions such as worry fear of failure, leading to dismay. Table 26 shows the symptoms of emotional stress experienced by the selected students.

Table 26: Symptoms of Emotional Stress Experienced by Selected Students

Symptoms	Class wise distribution of students * (In Percent)						Total N=1000		
	XI (N=500)			XII (N=500)					
	N	S	O	N	S	O	N	S	O
Anger	22	51	27	22	54	24	21	53	26
Restlessness	37	49	14	33	52	15	35	51	14
Anxiety	34	51	15	36	47	17	35	49	16
Fearfulness	35	48	17	37	42	21	36	45	19
Irritability	38	46	16	39	45	16	38	46	16
Frustration	43	43	14	43	45	12	43	44	13
Depression	46	41	13	43	43	14	44	42	14
Pessimism (negative thoughts)	49	36	15	46	42	12	47	39	14
Helplessness	50	37	13	52	38	10	51	38	11
Hopelessness	50	38	12	53	37	10	51	38	11
Guilt or Shame	52	38	10	55	36	9	54	37	9
Withdrawal from others	61	30	9	64	29	7	62	30	8

*Multiple responses, N-Never; S-Sometimes; O-Often

It was disturbing to note that, anger which is one of the deadly sign of emotional symptom of stress was expressed sometimes by the selected students and the percentage was higher (54 per cent) among twelfth when compared to 51 per cent eleventh students, this was followed by other symptoms of emotional stress like restlessness (52 per cent of twelfth and 49 per cent of eleventh), anxiety (51per cent of eleventh and 47 per cent of twelfth), fearfulness (48 per cent of eleventh and 42 per cent of twelfth), irritability (46 per cent of eleventh and 45 per cent of twelfth), and frustration (43 per cent of eleventh and 45 per cent of twelfth students). It was consoling to note that 46 per cent of eleventh students never felt depressed while compared to twelfth students (43 per cent), due to academic pressure. It was also encouraging to note that around 50 per cent eleventh and twelfth students reported that they never felt pessimistic with negative thoughts, feel of helplessness, hopelessness feel of guilt or never felt to withdraw from others during this phase of life. Vitasari et al. (2010) analyzed that there was a

significant correlation of high level anxiety and low academic performance among students. Feelings of nervousness panic, failing examinations, feeling incapable of doing tasks, racing heartbeat, and restless mind are symptoms of anxiety which contribute to low academic performance among students.

4.8.3. Symptoms of physical stress experienced

Test anxiety makes some students to experience physiological reactions. Physiological symptoms of stress include sweating, diarrhoea, trembling and sleeplessness (Gurian and Miner, 1991). Table 27 shows the symptoms of physical stress experienced by the selected students.

Table 27: Symptoms of Physical Stress Experienced by Selected Students

Symptoms	Class wise distribution of students * (In Percent)						Total N=1000		
	XI (N=500)			XII (N=500)					
	N	S	O	N	S	O	N	S	O
Fatigue (Tiredness)	34	50	16	26	56	18	30	53	17
Muscle ache	38	44	18	33	49	18	35	47	18
Frequent cold / fever	41	48	11	42	44	14	42	46	12
Headache	31	45	24	29	43	28	30	44	26
Sleeplessness	41	46	13	43	42	15	42	44	14
Sweating	36	43	21	45	36	19	41	39	20
Trembling	71	23	6	72	23	5	71	24	5
Breathing problems	73	20	7	75	20	5	74	20	6
Loss of appetite	77	18	5	73	21	6	75	19	6
Frequent urination	78	16	6	76	19	5	77	18	5
Dental problems / mouth ulcers	77	17	6	79	15	6	78	16	6
Nausea / vomiting	80	16	4	79	18	3	79	17	4
Fainting	79	17	4	82	17	1	80	17	3
Heart palpitations	81	15	4	83	14	3	82	15	3
Chest pain	81	15	4	86	13	1	83	14	3
Diarrhoea / Constipation	90	8	2	90	9	1	90	8	2

*Multiple responses, N-Never; S-Sometimes; O-Often

Cassano and Fava (2002) informed that depression is associated with a constellation of psychological, behavioral and physical symptoms. Students sometimes experience panic attacks. The affected individual may experience heart palpitations, chest pain, choking sensations, dizziness, sweating, tingling, chills, hot flashes, trembling, nausea and depersonalization. When an adolescent is experiencing difficulties coping with stress, he or she is likely to show changes in mood and behavior.

The data regarding the physical symptoms of stress experienced by the selected students in relation to exam anxiety inferred that physical symptoms of stress in the form of fatigue/tiredness was felt sometimes by maximum 56 per cent of twelfth and 50 per cent of eleventh students, followed by muscle ache (49 per cent of twelfth and 44 per cent of eleventh), cold or fever (48 per cent of eleventh and 44 per cent of twelfth), headache (45 per cent of eleventh and 43 per cent of twelfth students) and sleeplessness (42 per cent of twelfth and 46 per cent of eleventh students) by the surveyed students.

It was encouraging to note that above 70 per cent of both eleventh and twelfth students never experienced trembling, breathing problems, loss of appetite, frequent urination, dental problems and mouth ulcers, feeling of nausea or vomiting, fainting, heart palpitation, chest pain and diarrhoea or constipation related issues during this phase of life.

4.8.4. Symptoms of behavioral stress experienced

Academic stress among students have long been researched on, and researchers have identified too many assignments, competitions with other students, failures and poor relationships with other students or lecturers as stressors (Fairbrother and Warn, 2003). Students cited too much work to be accomplished within short time that leaves them with no time to enjoy their social life. This finding was consistent with other studies (Fairbrother and Warn, 2003; McCarty et al., 2007; Ongori, 2007; Agolla, 2009). Table 28 shows the symptoms of behavioral stress experienced by the selected students.

Table 28: Symptoms of Behavioral Stress Experienced by Selected Students

Symptoms	Class wise distribution of students * (In Percent)						Total N=1000		
	XI (N=500)			XII (N=500)					
	N	S	O	N	S	O	N	S	O
Nightmare/ Visual flash back / Recurring dreams	36	42	22	35	44	21	36	43	21
Grinding teeth	78	17	5	80	16	4	79	16	5
Hair chewing/ Hair scratching	75	19	6	78	16	6	76	18	6
Grumbling	68	23	9	73	22	5	71	22	7
Throwing things	63	28	9	68	26	6	65	27	8
Hitting objects	53	40	7	66	28	6	59	34	7
Nail biting	50	30	20	57	26	17	54	28	18
Tapping of foot	52	31	17	55	33	12	54	32	14
Crying	48	41	11	49	41	10	49	41	10
Yelling	69	22	9	66	25	9	67	24	9
Isolation / Being alone / Loneliness	54	33	13	49	34	17	52	33	15
Mood swings	46	36	18	42	39	19	44	37	19
Imaginary symptoms	40	37	23	40	37	23	40	37	23

*Multiple responses, N-Never; S-Sometimes; O-Often

It was disturbing to note that, a sign of behavioral symptom of stress in the form of nightmare/ visual flash back / recurring dreams was felt sometimes by the selected students and the percentage was slightly higher (44 per cent) among twelfth when compared with eleventh students (42 per cent). It was encouraging to note that above 70 per cent of eleventh and twelfth students reported that they never experienced behavioral symptoms like grinding teeth, chewing or scratching their hair and grumbling over academic issues. Forty nine per cent of twelfth and 48 per cent of eleventh students expressed that they never cried over academic burden which is a sign that is to be appreciated. Only minimum difference in the behavioral changes could be noted between eleventh and twelfth standard students.

The mean, standard deviation and‘t’ value of symptoms of stress between eleventh and twelfth students is presented in the given Table below.

Table 29: Comparison of Symptoms of Stress between Eleventh and Twelfth Students

Symptoms of Stress	Class	N	Mean	Std. Deviation	Std. Error Mean	't' value	p value
Psychological Symptoms	XI	500	19.48	4.484	0.201	0.306 NS	0.760
	XII	500	19.56	4.207	0.188		
Emotional Symptoms	XI	500	20.50	5.006	0.224	0.265 NS	0.791
	XII	500	20.42	4.786	0.214		
Physical Symptoms	XI	500	23.43	4.769	0.213	0.351 NS	0.725
	XII	500	23.33	4.587	0.205		
Behavioral Symptoms	XI	500	20.33	5.002	0.224	1.245 NS	0.213
	XII	500	19.95	4.644	0.208		

NS - Not Significant

The computed value given in the Table indicates that there is no significant difference in exhibiting symptoms of stress between eleventh and twelfth students. **Hence first part of Hypothesis 3 which states that there would be a significant difference in symptoms of stress experienced between eleventh and twelfth standard students is rejected.**

4.9. Stress coping among selected students

When individuals experience stress or face demanding situation, they adopt ways of dealing with it, as they cannot remain in a continued state of tension. The results under this part of the study are discussed under the following headings.

4.9.1 Stress coping strategies among selected students

4.9.2 Suggestions recommended by selected students to reduce stress

4.9.1 Stress coping strategies among selected students

Stress is a normal part of everyday life. However, there are various ways to deal with it that are more beneficial and healthy. Stress coping includes the cognitive, emotional or behavioral strategies, which are used to adjust to the stressful situations. Making healthy food choices and taking care of health can improve performance and concentration. Stress, lack of sleep, and being in a potential time crunch all work together to sabotage not only test performance, but set up a domino effect that leads to poor nutrition. These factors can have negative effects on final grade. Table 30 and Figure 14a and

14b presents information on stress coping strategies adopted by selected students.

Table 30: Stress Coping Strategies Adopted by Selected Students

Stress coping strategies	Class wise distribution of students * (In Percent)						Total N=1000		
	XI (N=500)			XII (N=500)					
	N	S	O	N	S	O	N	S	O
Listening to music	5	25	70	9	31	60	7	28	65
Talking to friends	6	20	74	8	28	64	7	24	69
Conversing with Parents / Relatives	10	25	65	11	31	58	10	28	62
Physical / Mental exercising	37	40	23	50	34	16	44	37	19
Sleeping	6	30	64	10	35	55	8	32	60
Watching TV / Movie	9	33	58	18	38	44	13	36	51
Outing/Mall/ Restaurant	33	48	19	47	38	15	40	43	17
Reading / Playing	24	42	34	42	40	18	33	41	26
Sharing Jokes / Laughing	13	32	55	17	33	50	15	33	52

*Multiple responses, N-Never; S-Sometimes; O-Often

It is clear from the Table that the eleventh students often followed many stress coping strategies to get relieved from academic stress when compared to twelfth students. Often for majority of 74 percent of eleventh and 64 per cent of twelfth students favorite stress relaxer was talking to their friends, followed by listening to music by 70 per cent eleventh and 60 per cent twelfth students and conversing with parents or relatives by 65 per cent eleventh and 58 per cent twelfth students helped to overcome stress. Having adequate sleep by 64 per cent of eleventh and 55 per cent of twelfth students had helped them to overcome stress, followed by watching television programme / movie of their choice by 58 per cent of eleventh and 44 per cent of twelfth students. It was good to find that 55 per cent of eleventh and 50 per cent twelfth students often overcame their academic pressure by sharing jokes and having good amount of laughter. Fifty per cent of twelfth students due to academic pressure never did any form of exercise, but forty per cent of eleventh students sometimes did exercise to keep their body and mind fit to lead a healthy life. McTigue (2010), emphasized that periodically student try to stand, stretching their arms and legs, even squatting, bending side to side, rolling their head, walking etc., for free flow of blood, loosen cramped muscles

and joints and to get relieved some of the stress. One or two minutes for each hour, this can be done as a quick tune up for the body. Results from the study also highlights that 48 per cent of eleventh students sometimes used to go out to malls and restaurants for diversion while 47 per cent of twelfth student never visited these places due to school related work. Another interesting revelation was that 42 per cent of eleventh standard students sometimes had a contrast habit of reading non academic books or magazines or playing indoor or outdoor games to get relieved from stress whereas 42 per cent of twelfth students never done it during this period.

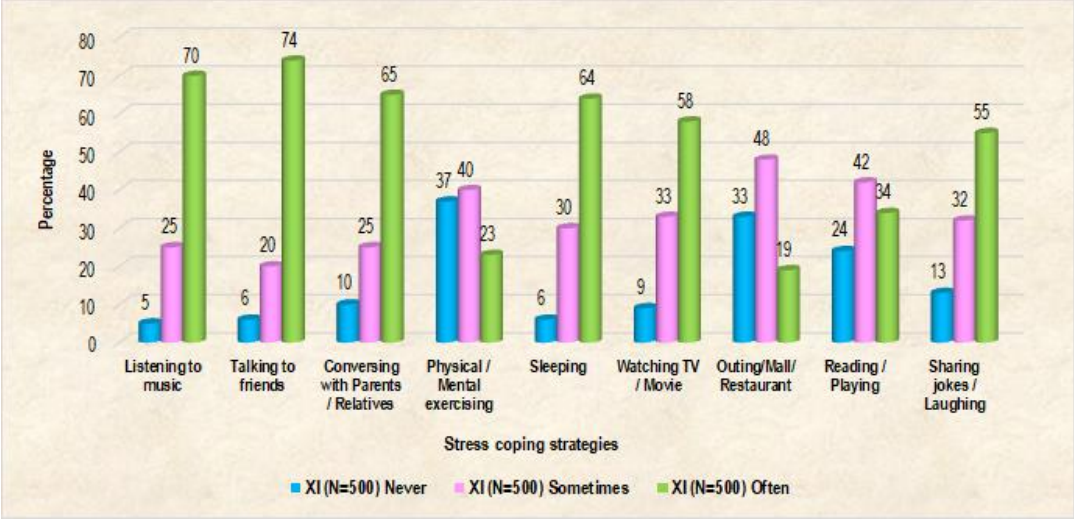

Figure 14a: Stress Coping Strategies among Eleventh Students

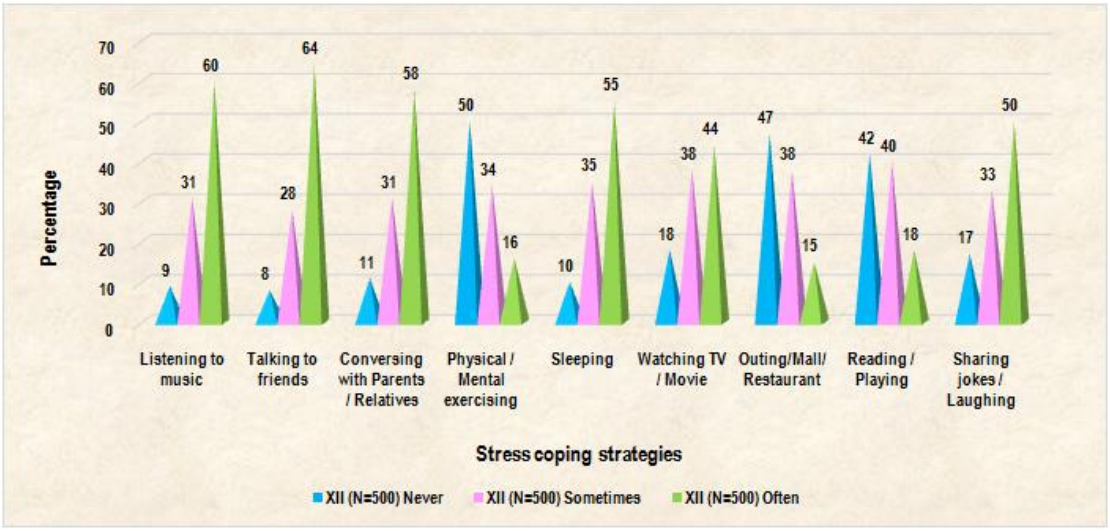

Figure 14b: Stress Coping Strategies among Twelfth Students

The mean, standard deviation and‘t’ value of stress coping strategies between eleventh and twelfth students is presented in Table 31.

Table 31: Comparison of Stress Coping Strategies between Eleventh and Twelfth Students

Stress coping strategies	Class	N	Mean	Standard Deviation	Std. Error Mean	‘t’ value	p value
	XI	500	21.14	3.179	0.142	6.821**	0.000
	XII	500	19.60	3.922	0.175		

** Significant at p<0.01 level

It can be observed from the Table that there existed a significant difference at p<0.01 level in stress coping strategies among the students. Eleventh students reported 21.14 (mean value) when compared to twelfth students (19.60) mean value. From the mean values, it can be inferred that eleventh students followed good stress coping strategies effectively to get relieved of stress as compared to twelfth students. However the twelfth standard students could not follow the stress coping strategies since they would have felt that the mark scored in the final year of schooling will decide their future. **Hence second part of Hypothesis 3 which states that there would be a significant difference in stress coping strategies between eleventh and twelfth standard students is accepted.**

Correlation between types of support accessible from supportive network and stress coping strategies followed among selected students

The data in Table 32 present the correlation between types of support accessible from supportive network and stress coping strategies of eleventh and twelfth standard students.

Table 32: Correlation between Types of Support Accessible from Supportive Network and Stress Coping Strategies followed among Selected Students

Type of support from Supportive network	Stress coping strategies	
	XI	XII
Moral support	0.196**	0.149**
Psychological support	0.209**	0.185**
Academic guidance	0.229**	0.135**

** Significant at p<0.01 Level

Correlation between three variables namely moral support, psychological support and academic guidance and stress coping strategies followed by the selected students showed high positive correlation significant at p<0.01 level. It could be inferred from the result that more the support accessible from supportive network better was coping strategies followed to overcome stress.

4.9.2 Suggestions recommended by selected students for reducing stress

Table 33 and Figures 15a and 15b show the suggestions recommended by selected students for reducing their stress.

Table 33: Suggestions Recommended by Selected Students for Reducing Stress

Recommended suggestions	Class wise distribution of students				Total	
	XI		XII			
	N=500	%	N=500	%	N=1000	%
Be relaxed and stay confident	411	82	351	70	762	76
Practice of physical activity	45	9	56	11	101	10
Practice of positive therapy	25	5	41	8	66	7
Systemize study practices	13	3	30	6	43	4
Help from support network	6	1	22	5	28	3

The open-ended question seeking to recommend suggestions to reduce stress had an enthusiastic response from the selected students. It can be inferred from the data that majority of 82 per cent of eleventh and 70 per cent of twelfth students suggested to be relaxed and stay confident about better performance in the approaching exams. Eleven per cent of twelfth and

nine percent of eleventh students suggested practicing of physical activity, followed by eight percent of twelfth and five percent of eleventh students who recommended following of positive therapy. Six percent of twelfth and three percent of eleventh students recommended systemized study practices and five percent of twelfth and one percent of eleventh students informed to seek help from supportive network. Since the selected students had awareness on academic stressors, it is essential for the students to identify the cause for their own stress if any on continuous basis and practice few simple methods to reduce stress.

Mullick (2007) described that, any time that is utilized for activities other than those of duty is termed as leisure. Leisure is essential, as it helps to relieve fatigue and renew one's zest for work, besides providing a sense of relaxation and personal satisfaction. The activities that are carried on during this time are those that are done for their own sake. Leisure time activities help a person to relax and refresh and may take a variety of form such as socializing, playing games, perusing a hobby, watching TV, listening to music, travelling and reading. The activities undertaken are largely determined by one's own interest, age, occupation, income and time available. Leisure is an important aspect of one's life and promotes good mental and physical well-being. They create interest in work, improve efficiency, relax, refresh and even make one to be more energetic to tackle their duties and work.

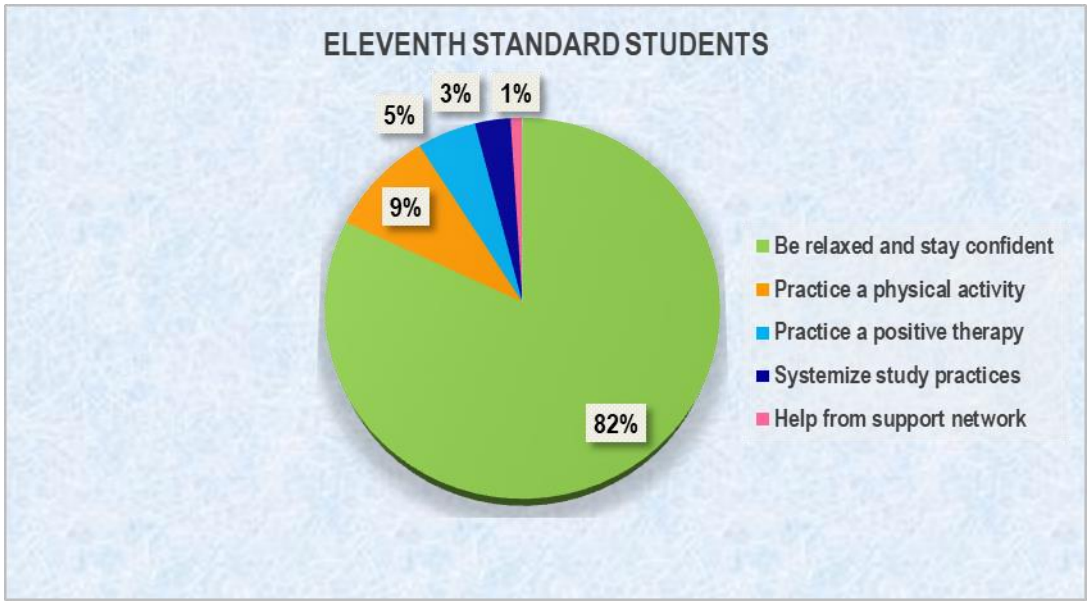

Figure 15a: Suggestions Recommended by Eleventh Standard Students for Reducing Stress

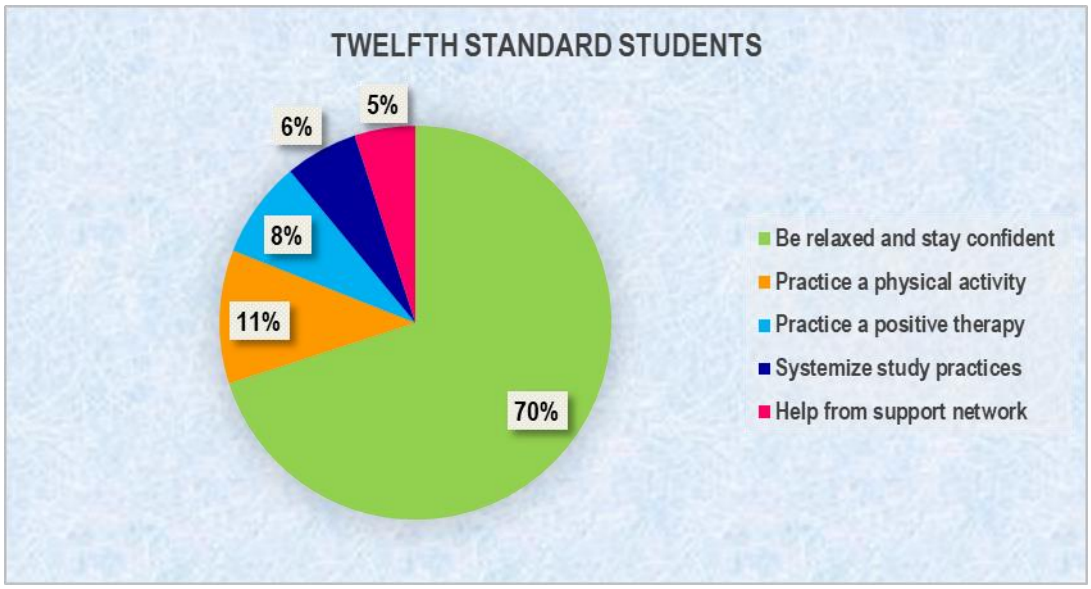

Figure 15b: Suggestions Recommended by Twelfth Standard Students for Reducing Stress

4.10. Students stress and test anxiety towards board exam

Stress is a normal part of academic life and, in small amounts, can motivate students to be more productive. Frequent stress, however, can have negative effects on physical and psychological health. When stress results in insomnia, poor concentration, and impaired ability to do normal things among students, it's negative. Stress will dissipate once the situation or event that is causing is over. Stress tends to be managed through lifestyle changes. Anxiety, on the other hand, is a sustained mental health disorder that can be

triggered by stress. Anxiety is stress that continues after that stressor is gone. Anxiety is a feeling of apprehension or fear and is almost always accompanied by feelings of impending doom. The source of this uneasiness is not always known or recognized, which can add to the distress.

The result under this part of the study is discussed under the following headings.

4.10.1. Stress experienced by students towards board exams.

4.10.2. Test anxiety experienced by the students towards board exams.

4.10.1 Stress experienced by students towards board exams

Table 34 and Figure 16 show the stress experienced by students towards board exams.

Table 34: Stress Experienced by Students towards Board Exams

Feeling of student stress	Class wise distribution of students * (In Percent)									
	XI (N=500)					XII (N=500)				
	N	R	ST	O	VO	N	R	ST	O	VO
Not able to pay attention in class	12	27	51	6	4	13	29	45	10	3
Not able to understand what is taught	13	37	40	5	5	16	37	38	6	3
Not sure of doing well in school	21	26	37	12	4	22	27	35	13	3
Poor attendance	51	25	16	5	3	51	28	15	4	2
Often late for class	62	19	14	3	2	53	24	17	3	3
Too many assignments	17	24	38	12	9	14	18	36	13	19
Too much to do with tuition and school homework	27	23	29	15	6	24	21	26	20	9
Don't get enough pocket money	46	20	19	7	8	54	15	17	8	6
Lack of money for basic expenses	46	23	19	7	5	52	17	17	7	7
Parents control the expenditure of money	29	21	25	15	10	35	18	25	11	11
Trouble in getting along with the family members	53	18	20	5	4	42	17	14	4	23
No friends and feel lonely	57	15	19	5	4	50	10	12	3	25
Feel insecure due to competition in getting good grades and jobs	31	25	30	6	8	20	18	27	7	28
Feel there is no time for exercise	35	25	29	5	6	34	18	28	11	9
Have fluctuations in body weight	33	25	29	8	5	35	19	30	9	7
Tired and have altered quantum of sleep	24	25	33	10	8	19	21	33	15	12
Feel depressed and sad	27	25	32	8	8	25	23	36	9	7
Feel no one cares for me	42	21	23	7	7	45	20	24	6	5
Feel too much pressure because of studies and exams	16	20	36	16	12	11	18	26	12	33
No longer could do things once much liked	23	21	37	10	9	24	21	33	12	10

* Multiple responses, N-Never; R- Rare; ST-Sometimes; O-Often; VO-Very Often

The scores for each statement from the students were used to compute the total score (very often - 4, often - 3, sometimes - 2, rarely - 1, never – 0), and the total score thus obtained was taken for analysis. Based on the percentile analysis, the scores were categorized. Scores between 0-20 indicated a good control over stress, 21-40 a low level of stress, 41-60 a medium level of stress and 61-80 high level of stress.

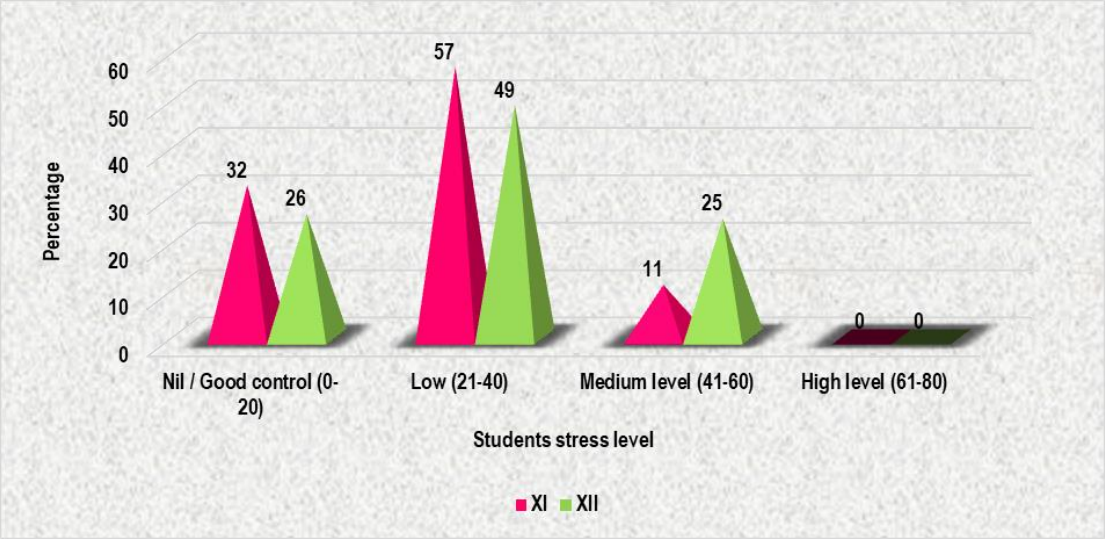

Figure 16: Student Stress Level among the Selected Students

The statistical analysis (Chi-square test) on association of students stress level among eleventh and twelfth students is given in Table 35.

Table 35: Association of Student Stress Level among Eleventh and Twelfth Students

Student stress level	Class wise distribution of students (In Percent)				Total		Chi-square value
	XI		XII				
	N=500	%	N=500	%	N=1000	%	33.268**
Nil / Good control (0-20)	159	32	129	26	288	29	
Low (21-40)	283	57	244	49	527	53	
Medium level (41-60)	58	11	127	25	185	18	
High level (61-80)	0	0	0	0	0	0	

** Significant at p<0.01 level

It is clear from the data that 32 per cent of eleventh and 26 per cent of twelfth standard students had good control over stress. Fifty seven per cent of eleventh and 49 per cent of twelfth standard students had low level of stress. Eleven per cent of eleventh and 25 per cent of twelfth standard students experienced medium level of stress. However studies have revealed that certain amount of stress is required for students to perform better in their academics.

Statistically significant association was observed between student stress level and the class in which the students are studying (eleventh and twelfth standard) at p<0.01 level (χ^2=33.268, p = 0.000). A low level of stress was noticed among maximum 57 per cent and 49 per cent of eleventh and twelfth standard students respectively. Bhasin et al. (2010), conducted a school-based study on depression, anxiety and stress (DAS) among adolescent students belonging to affluent families. It was seen that depression was significantly more among females than males. Anxiety and stress were all significantly higher among 'board classes' (tenth and twelfth) as compared to ninth and eleventh. Depression and stress were found to be significantly associated with the number of adverse events in the student's life. It was found that a significant proportion of the students had high levels of DAS and several important factors were found to be associated with them. **Depression, anxiety and stress, were found to have an inverse relationship with the academic performance of the students.**

Table 36 presents the information on mean, standard deviation and 't' value of stress level between eleventh and twelfth students.

Table 36: Comparison of Student Stress Level between Eleventh and Twelfth Students

	Class	N	Mean	Std. Deviation	Std. Error Mean	't' value	p value
Student Stress	XI	500	26.31	11.892	0.532	3.937**	0.000
	XII	500	29.48	13.503	0.604		

** Significant at p<0.01 level

The computed value indicates that there exists a significant difference in student stress between eleventh and twelfth standard students at p<0.01

level. **The mean value for twelfth standard students was high (29.48) and shows that they were more stressed than eleventh standard students.**

Impact of stress level on symptoms of stress among the selected students was studied using one-way ANOVA.

Table 37a projects the difference in the impact of stress level on symptoms of stress among eleventh and twelfth standard students.

Table 37a: Impact of Stress Level on Symptoms of Stress among Eleventh and Twelfth Standard Students

Class	Variables	Source of variation	Sum of Squares	df	Mean Square	F
XI	Psychological symptoms	Between Groups	1754.797	3	584.932	35.056**
		Within Groups	8276.003	496	16.685	
		Total	10030.800	499		
	Emotional symptoms	Between Groups	2511.431	3	837.144	41.557**
		Within Groups	9991.567	496	20.144	
		Total	12502.998	499		
	Physical symptoms	Between Groups	1480.399	3	493.466	24.807**
		Within Groups	9866.423	496	19.892	
		Total	11346.822	499		
	Behavioral symptoms	Between Groups	1871.700	3	623.900	29.159**
		Within Groups	10612.508	496	21.396	
		Total	12484.208	499		
XII	Psychological symptoms	Between Groups	1395.418	3	465.139	31.028**
		Within Groups	7435.534	496	14.991	
		Total	8830.952	499		
	Emotional symptoms	Between Groups	1348.236	3	449.412	22.106**
		Within Groups	10083.564	496	20.330	
		Total	11431.800	499		
	Physical symptoms	Between Groups	587.961	3	195.987	9.807**
		Within Groups	9912.589	496	19.985	
		Total	10500.550	499		
	Behavioral symptoms	Between Groups	1143.084	3	381.028	19.646**
		Within Groups	9619.564	496	19.394	
		Total	10762.648	499		

** Significant at p<0.01 level

It is apparent from the Table that, there existed a difference significant at p<0.01 level in the psychological symptoms of stress (F=35.056), emotional

symptoms of stress (F=41.557), physical symptoms of stress (F=24.807), and behavioral symptoms of stress (F=29.159) among the eleventh standard students based on various stress level. It can also be noted from the data that there existed a difference significant at p<0.01 level in the psychological symptoms of stress (F=31.028), emotional symptoms of stress (F=22.106), physical symptoms of stress (F=9.807), and behavioral symptoms of stress (F=19.646) among the twelfth standard students based on various stress level.

Table 37b: Tukey's B test for Impact of Stress Level on Symptoms of Stress among Eleventh Standard Students

Symptoms of stress	Students stress level	N	Subset for alpha = 0.05	
			1	2
Psychological symptoms	Good control (0-20)	159	16.91	
	Low level (21-40)	283	20.32	20.32
	Medium level (41-60)	58		22.39
Emotional symptoms	Good control (0-20)	159	17.49	
	Low level (21-40)	283	21.42	21.42
	Medium level (41-60)	58		24.18
Physical symptoms	Good control (0-20)	159	21.35	
	Low level (21-40)	283	23.96	
	Medium level (41-60)	58	26.25	
Behavioral symptoms	Good control (0-20)	159	17.67	
	Low level (21-40)	283	21.29	
	Medium level (41-60)	58	22.64	

Further analysis using Tukey's B multiple comparison test revealed that the psychological symptoms were more among those with medium level ($\bar{x}$=22.39) of stress compared to those among good control ($\bar{x}$ =16.91) and low control ($\bar{x}$=20.32). Similarly emotional symptoms were more among those with medium ($\bar{x}$=24.18) level of stress compared to those among good control ($\bar{x}$=17.49) and low control ($\bar{x}$=21.42). Physical ($\bar{x}$=26.25) and behavioral ($\bar{x}$=22.64) symptoms of stress were experienced more with medium level of stress compared to that of those with good control and low level of stress among the eleventh standard students. **It is clear from the analysis that**

more the symptoms of stress experienced, the students had more level of stress.

Table 37c: Tukey's B test for Impact of Stress Level on Symptoms of Stress among Twelfth Standard Students

Symptoms of stress	Students stress level	N	Subset for alpha = 0.05		
			1	2	3
Psychological symptoms	Good control (0-20)	129	17.56		
	Low level (21-40)	244		20.35	
	Medium level (41-60)	127			22.36
Emotional symptoms	Good control (0-20)	129	18.54		
	Low level (21-40)	244		21.17	
	Medium level (41-60)	127		22.79	
Physical symptoms	Good control (0-20)	129	21.92		
	Low level (21-40)	244	23.87	23.87	
	Medium level (41-60)	127		25.50	
Behavioral symptoms	Good control (0-20)	129	18.21		
	Low level (21-40)	244		20.57	
	Medium level (41-60)	127			23.86

Analysis using Tukey's B multiple comparison test revealed that the psychological symptoms were more among those with medium level ($\bar{x}$=22.36) of stress compared to those among good control ($\bar{x}$=17.26) and low control ($\bar{x}$=20.35). Similarly emotional symptoms were more among those with medium ($\bar{x}$=22.79) level of stress compared to those among good control ($\bar{x}$=18.54) and low control ($\bar{x}$=21.17). Physical ($\bar{x}$=25.50) and behavioral ($\bar{x}$=23.86) symptoms of stress were experienced more with medium level of stress compared to that of those with good control and low level of stress among the twelfth standard students. **It is clear from the analysis that more the symptoms of stress experienced the students had more level of stress**.

Contributing factors to student's stress among the selected students was studied using multiple regression analysis

Results of multiple regression analysis on student stress in relation to predictor variables such as conspectus of selected students, resources available, parent involvement, support accessible from supportive network,

symptoms of stress and stress coping strategies of the selected eleventh standard students are discussed below.

Table 38a: Contributing Factors to Student's Stress among Eleventh Standard Students

Regression details	Predictor variables	UnStandardized Co-efficient		Standardized Co-efficient	't'
		B	$S.E._B$	Beta	
R=0.623 R^2=0.388 Adjusted R^2=0.361 Std. Error of the Estimate=9.508 F =14.415**	Age	1.083	0.755	0.053	1.434^{NS}
	Family Size	0.178	0.884	0.008	0.201^{NS}
	Family type	-0.151	1.133	-0.005	-0.133^{NS}
	Number of siblings	2.431	1.262	0.072	1.926*
	Mode of transportation to school	0.469	0.215	0.082	2.184*
	Factors influencing selection of school	0.353	0.308	0.042	1.147^{NS}
	Time availability	0.058	0.112	0.020	0.511^{NS}
	Contribution of time towards various activities	-0.242	0.216	-0.044	-1.121^{NS}
	Types of fatigue experienced	0.374	0.192	0.078	1.948*
	Financial assistance from parents for academic activities	1.417	0.473	0.121	2.996**
	Pocket money	-0.053	0.100	-0.020	-0.533^{NS}
	Food preferences	-0.066	0.239	-0.011	-0.277^{NS}
	Parent involvement	0.053	0.193	0.010	0.277^{NS}
	Moral support from supportive network	-0.240	0.225	-0.053	-1.070^{NS}
	Psychological support from supportive network	-0.166	0.203	-0.043	-0.820^{NS}
	Academic guidance from supportive network	-0.179	0.205	-0.044	-0.875^{NS}
	Psychological symptoms of stress	0.437	0.121	0.165	3.604**
	Emotional symptoms of stress	0.613	0.119	0.258	5.136**
	Physical symptoms of stress	0.222	0.111	0.089	1.998*
	Behavioral symptoms of stress	0.247	0.110	0.104	2.243*
	Stress coping strategies	-0.246	0.150	-0.066	-1.642^{NS}

** Significant at p<0.01 level, * Significant at p<0.05 level, NS Not Significant

The results revealed a significant contribution by some of the predictor variables on student's stress level (F=14.415) at p<0.01 level. From the Adjusted R^2 value (Adjusted R^2 = 0.361), it is found that the above variables contribute 36 per cent of the total variance to the dependent variable, student's stress. **The 't' values show that the relationship between student stress and financial assistance from parents for academic activities, psychological symptoms of stress and emotional symptoms of stress contribute significantly to student's stress significant at p<0.01 level. The 't' values also show that the relationship between student stress and number of sibling, mode of transportation, types of fatigue experienced, physical symptoms of stress and behavioral symptoms of stress contribute significantly to student's stress significant at p<0.05 level.**

The β – values shows that age, family size, number of siblings, mode of transportation to school, factors influencing selection of school, time availability, type of fatigue experienced, financial assistance from parents for academic activities, parent involvement, psychological symptoms of stress, emotional symptoms of stress, physical symptoms and behavioral symptoms of stress contribute to overall stress among eleventh standard students. Among these emotional symptoms of stress with β value of 0.258 made the strongest contribution to overall stress among eleventh standard students. The negative β values exhibit that family type, contribution of time towards various activities, pocket money received, food preferences, accessible moral support, psychological support, academic guidance from supportive network and stress coping strategies had inverse contribution to student stress among the selected students. It is observed that stress coping strategies followed by eleventh students with β value of -0.066 made the least contribution to student stress. **It could be inferred that more the coping strategies the students followed for reducing their academic stress there was reduction in student stress levels among the eleventh standard students**.

Contributing factors to student's stress among twelfth standard students

Results of multiple regression analysis on student stress in relation to predictor variables such as conspectus of selected students, resources available, parent involvement, support accessible from supportive network, symptoms of stress and stress coping strategies of the selected twelfth standard students are discussed in Table 38.b.

The results revealed a significant contribution by some of the predictor variables on student's stress level ($F=9.063$) at $p<0.01$ level. From the Adjusted R^2 value (Adjusted $R^2 = 0.253$), it is found that the above variables contribute 25 per cent of the total variance to the dependent variable, student's stress. **The 't' values show that the relationship between student stress and types of fatigue experienced, pocket money received, parent involvement, accessible moral support from supportive network, psychological symptoms of stress and behavioral symptoms of stress contribute significantly to student's stress significant at $p<0.01$ level. The 't' value also show that the relationship between student stress and mode of transportation to school contribute significantly to student's stress significant at $p<0.05$ level.**

Table 38b: Contributing Factors to Student's Stress among Twelfth Standard Students

Regression details	Predictor variables	UnStandardized Co-efficient		Standardized Co-efficient	't'
		B	$S.E._B$	Beta	
R=0.534 R^2=0.285 Adjusted R^2=0.253 Std. Error of the Estimate=11.667 F =9.063**	Age	-0.111	0.086	-0.052	-1.293^{NS}
	Family Size	-0.365	1.040	-0.016	-0.351^{NS}
	Family type	-0.800	1.420	-0.025	-0.564^{NS}
	Number of siblings	0.934	1.581	0.024	0.591^{NS}
	Mode of transportation to school	-0.513	0.268	-0.076	-1.914*
	Factors influencing selection of school	-0.449	0.373	-0.048	-1.203^{NS}
	Time availability	0.150	0.130	0.049	1.151^{NS}
	Contribution of time towards various activities	-0.391	0.283	-0.058	-1.383^{NS}
	Types of fatigue experienced	0.749	0.218	0.154	3.434**
	Financial assistance from parents for academic activities	0.423	0.579	0.032	0.731^{NS}
	Pocket money	0.378	0.130	0.122	2.900**
	Food preferences	0.427	0.310	0.059	1.376^{NS}
	Parent involvement	-0.609	0.216	-0.112	-2.811**
	Moral support from supportive network	-0.773	0.307	-0.148	-2.523**
	Psychological support from supportive network	0.123	0.268	0.026	0.461^{NS}
	Academic guidance from supportive network	-0.053	0.246	-0.011	-0.217^{NS}
	Psychological symptoms of stress	0.874	0.178	0.272	4.918**
	Emotional symptoms of stress	-0.192	0.181	-0.068	-1.064^{NS}
	Physical symptoms of stress	-0.049	0.154	-0.017	-0.317^{NS}
	Behavioral symptoms of stress	0.494	0.152	0.170	3.242**
	Stress coping strategies	-0.171	0.149	-0.050	-1.149^{NS}

** Significant at p<0.01 level, * Significant at p<0.05 level, NS Not Significant

The β value shows that number of siblings, time availability, type of fatigue experienced, financial assistance, pocket money, food preferences, psychological support, psychological symptoms and behavioral symptoms of stress positively contribute to overall stress among twelfth standard students. Among these psychological symptoms of stress with β value of 0.272 made

the strongest contribution to overall stress among twelfth standard students. The negative β values exhibit that age, family size, family type, mode of transportation, factors influencing selection of school, time spent towards various activities, parent involvement, accessible moral support and academic guidance from supportive network, emotional symptoms of stress, physical symptoms of stress and stress coping strategies had inverse contribution to student stress among the selected students. It is observed that accessible moral support from supportive network with β value of -0.148 made the least contribution to student stress. **It could be inferred that more the availability of moral support from supportive network there was reduction in student stress level among the twelfth standard students**.

4.10.2 Test anxiety experienced by the students towards board exams.

Table 39 shows the test anxiety experienced by the students towards board exams.

Table 39: Test Anxiety Experienced by the Students towards Board Exams

Test anxiety	Class wise distribution of students * (In Percent)									
	XI (N=500)					XII (N=500)				
	N	R	ST	O	A	N	R	ST	O	A
Nervousness before exam	26	22	27	14	11	23	19	34	14	10
Have butterflies in stomach before exam	27	23	27	14	9	27	23	28	14	8
Nausea before exam	37	26	25	7	5	39	20	29	9	3
Feel that they don't know any answers	22	20	49	0	9	18	27	38	11	6
Getting panic before and during exam	18	24	33	13	12	17	23	30	20	10
Mind goes blank during exam	23	22	29	15	11	18	25	33	16	8
Remember forgotten answers after leaving the exam hall	19	22	32	15	12	29	20	24	16	11
Trouble in sleeping the night before an exam	28	21	25	14	12	27	20	28	16	9
Make mistake on easy questions or put answers in wrong places	16	25	32	15	12	14	22	36	19	9
Have difficulty in choosing answers	21	25	34	11	9	19	25	35	13	8

*Multiple responses, N-Never; R- Rare; ST-Sometimes; O-Often; A-Always

It is clear from the Table that the selected students sometimes experienced signs of test anxiety, like feeling nervous before exam, however, the percentage was comparatively high among twelfth students (34 per cent) when compared to eleventh students (27 per cent). Forty nine per cent of eleventh and 38 per cent of twelfth students sometimes felt that they never knew any answers when they saw the question paper. Thirty three per cent of eleventh and 30 per cent of twelfth students sometimes felt panic before and during exam. It was also found from the study that 33 per cent of twelfth and 29 per cent of eleventh students sometimes felt their mind going blank during exam. Thirty two per cent of eleventh and 24 per cent of twelfth students felt they sometimes remembered the forgotten answers once they left the exam hall. Thirty six per cent of twelfth and 32 per cent of eleventh students felt they made mistake sometimes on easy questions or put answers in wrong places. The results also revealed that 35 per cent of twelfth and 34 per cent of eleventh students sometimes had difficulty in choosing answer. Twenty eight per cent of twelfth standard students admitted that they sometimes had trouble in sleeping the night before an exam however an equal response from eleventh standard students was that they never had any trouble in sleeping the night before an exam.

The statistical analysis (Chi-square test) on association of test anxiety level among eleventh and twelfth students is given in Table 40.

Table 40: Association of Test Anxiety Level among Eleventh and Twelfth Students

Test anxiety level	Class wise distribution of students (In Percent)				Total		Chi-square value
	XI		XII				
	N=500	%	N=500	%	N=1000	%	
Nil / Good control	116	23	133	27	249	25	6.203*
Medium anxiety level	314	63	321	64	635	64	
High anxiety level	70	14	46	9	116	11	

* Significant at p<0.05 level

Table 40 and Figure 17 show the test anxiety among the selected students. It is clear from the data that 23 per cent of eleventh and 27 per cent

of twelfth standard students had good control over test anxiety. Sixty three per cent of eleventh and 64 per cent of twelfth standard students had medium level of test anxiety. Fourteen per cent of eleventh and nine per cent of twelfth standard students had high level of test anxiety. Hence it is essential that these students should be given the intervention so as to manage the exam fear. **The chi-square value (χ^2 =6.203, p = 0.045) implies that there is a significant association at p<0.05 level between the test anxiety level and the class in which the students are studying (eleventh and twelfth standard).**

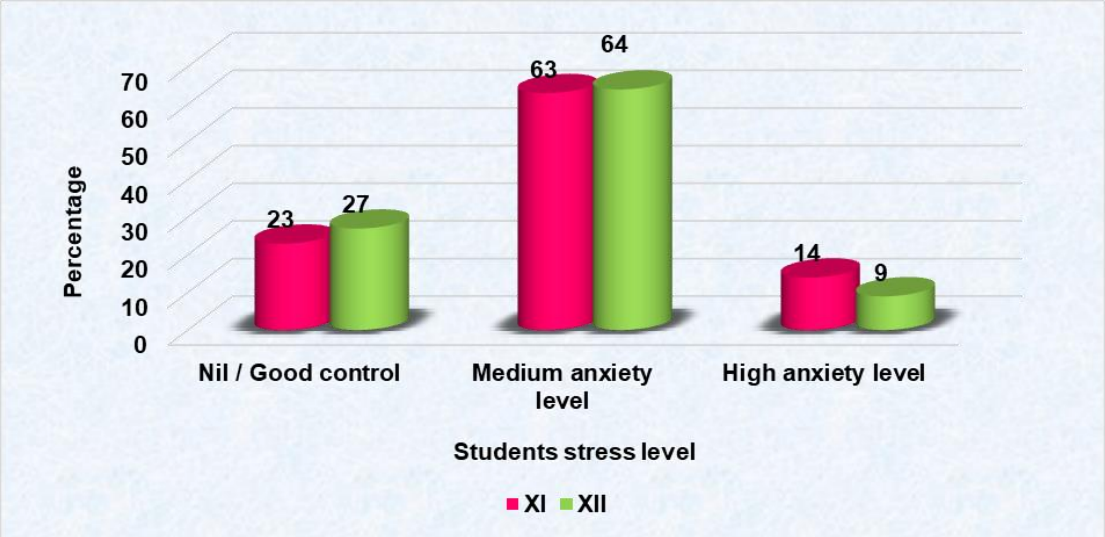

Figure 17: Test Anxiety Level among the Selected Students

The mean, standard deviation and 't' value of test anxiety level between eleventh and twelfth students is presented in the given Table below.

Table 41: Comparison of Test Anxiety Level between Eleventh and Twelfth Students

	Class	N	Mean	Std. Deviation	Std. Error Mean	't' value	p value
Test Anxiety level	XI	500	26.15	8.669	0.388	1.960*	0.054
	XII	500	25.13	8.030	0.359		

* Significant at p<0.05 level

The above Table shows the mean, standard deviation and 't' value of test anxiety level between eleventh and twelfth students. The computed value indicates that there exists a significant difference in test anxiety among eleventh and twelfth students at p<0.05 level. **The mean value for eleventh students was high (26.15) which show that they had more test anxiety than twelfth standard students.**

Correlation between resource availability with student stress and test anxiety among selected students

Table 42 summaries the correlation between resource availability with student stress and test anxiety of the selected students.

Table 42: Correlation between Resource Availability with Student Stress and Test Anxiety among Selected Students

Resources	Class wise distribution of students			
	XI		XII	
	Students stress	Test anxiety	Students stress	Test anxiety
Use of Time	-0.118**	-0.089*	-0.080 NS	-0.076NS
Fatigue	0.291**	0.337**	0.322**	0.260**
Financial control by parents	0.218**	0.196**	0.157**	0.106**

** Significant at p<0.01 level, * Significant at p<0.05 level, NS Not Significant

The results indicate that use of time is significantly inversely related to student stress (r = -0.118 at p<0.01 level) and test anxiety (r = -0.089 at p<0.05 level) among eleventh students, whereas though there was a similar inverse correlation in the case of twelfth students with student stress (r = -0.080) and test anxiety (r = -0.076) the correlation was not significant. It could be inferred from the above result that when the use of time in academics increased the levels of student stress and test anxiety decreased. Relationship of fatigue experienced by students and financial control by parents with student stress and test anxiety for both the classes showed strong significant positive correlation. It could be understood from the above result that when fatigue experienced by students and financial control by parents increased, the levels of student stress and test anxiety also increased simultaneously.

Impact of test anxiety level on symptoms of stress among the selected students was studied using one-way ANOVA.

Table 43a projects the difference in the impact of test anxiety level on symptoms of stress among eleventh and twelfth standard students.

Table 43a: Impact of Test Anxiety level on Symptoms of Stress among Eleventh and Twelfth Standard Students

Class	Variables	Source of variation	Sum of Squares	df	Mean Square	F
XI	Psychological symptoms	Between Groups	1706.324	2	853.162	50.937**
		Within Groups	8324.476	497	16.749	
		Total	10030.800	499		
	Emotional symptoms	Between Groups	2300.608	2	1150.304	56.036**
		Within Groups	10202.390	497	20.528	
		Total	12502.998	499		
	Physical symptoms	Between Groups	1135.637	2	567.818	27.637**
		Within Groups	10211.185	497	20.546	
		Total	11346.822	499		
	Behavioral symptoms	Between Groups	1115.547	2	557.774	24.384**
		Within Groups	11368.661	497	22.875	
		Total	12484.208	499		
XII	Psychological symptoms	Between Groups	780.617	2	390.309	24.096**
		Within Groups	8050.335	497	16.198	
		Total	8830.952	499		
	Emotional symptoms	Between Groups	727.636	2	363.818	16.892**
		Within Groups	10704.164	497	21.538	
		Total	11431.800	499		
	Physical symptoms	Between Groups	364.850	2	182.425	8.945**
		Within Groups	10135.700	497	20.394	
		Total	10500.550	499		
	Behavioral symptoms	Between Groups	642.200	2	321.100	15.769**
		Within Groups	10120.448	497	20.363	
		Total				

** Significant at p<0.01 level

It is apparent from the Table that, there existed a difference significant at p<0.01 level in the psychological symptoms of stress (F=50.937), emotional

symptoms of stress (F=56.036), physical symptoms of stress (F=27.637), and behavioral symptoms of stress (F=24.384) among the eleventh standard students based on various test anxiety level. It can also be noted from the data that there existed a difference significant at p<0.01 level in the psychological symptoms of stress (F=24.096), emotional symptoms of stress (F=16.892), physical symptoms of stress (F=8.945), and behavioral symptoms of stress (F=15.769) among the twelfth standard students based on various test anxiety level.

Table 43b: Tukey's B test for impact of Test Anxiety Level on Symptoms of Stress among Eleventh Standard Students

Symptoms of stress	Test Anxiety	N	Subset for alpha = 0.05		
			1	2	3
Psychological symptoms	Good control (10-19)	116	16.47		
	Mild anxiety (20-35)	314		19.94	
	High anxiety (36-50)	70			22.39
Emotional symptoms	Good control (10-19)	116	17.03		
	Mild anxiety (20-35)	314		21.02	
	High anxiety (36-50)	70			23.93
Physical symptoms	Good control (10-19)	116	21.05		
	Mild anxiety (20-35)	314		23.75	
	High anxiety (36-50)	70			25.96
Behavioral symptoms	Good control (10-19)	116	18.36		
	Mild anxiety (20-35)	314		20.37	
	High anxiety (36-50)	70			23.41

Further analysis using Tukey's B multiple comparison test revealed that the psychological symptoms were more among those with high test anxiety level ($\bar{x}$=22.39) compared to those among mild anxiety ($\bar{x}$=19.94) and good control ($\bar{x}$=16.47). Similarly emotional symptoms were more among those with high ($\bar{x}$=23.93) compared to those among mild anxiety ($\bar{x}$=21.02) and good control ($\bar{x}$=17.03). Physical ($\bar{x}$=25.96) and behavioral ($\bar{x}$=23.41) symptoms of stress were experienced more with high test anxiety level

compared to that of those with mild anxiety and good control among the eleventh standard students. **It is clear from the analysis that more the symptoms of stress experienced, the students had high test anxiety level**.

Table 43c: Tukey's B Test for Impact of Test Anxiety Level on Symptoms of Stress among Twelfth Standard Students

Symptoms of stress	Test anxiety	N	Subset for alpha = 0.05	
			1	2
Psychological symptoms	Good control (10-19)	133	17.55	
	Mild anxiety (20-35)	321		20.16
	High anxiety (36-50)	46		21.22
Emotional symptoms	Good control (10-19)	133	18.45	
	Mild anxiety (20-35)	321		21.03
	High anxiety (36-50)	46		21.83
Physical symptoms	Good control (10-19)	133	21.95	
	Mild anxiety (20-35)	321		23.74
	High anxiety (36-50)	46		24.48
Behavioral symptoms	Good control (10-19)	133	18.19	
	Mild anxiety (20-35)	321		20.41
	High anxiety (36-50)	46		21.83

Analysis using Tukey's B multiple comparison test revealed that the psychological symptoms were more among those with high ($\bar{x}$=21.22) and mild ($\bar{x}$=20.16) level of test anxiety compared to those among good control ($\bar{x}$=17.55). Similarly emotional symptoms were more among those with high ($\bar{x}$=21.83) and mild ($\bar{x}$=21.03) level of test anxiety compared to those among good control ($\bar{x}$=18.45). Physical symptoms were more among those with high ($\bar{x}$=24.48) and mild ($\bar{x}$=23.74) level of test anxiety compared to those among good control ($\bar{x}$=21.95) and behavioral were more among those with high ($\bar{x}$=21.83) and mild ($\bar{x}$=20.41) level of test anxiety compared to those among good control ($\bar{x}$=18.19) among the twelfth standard students. **It is clear from the analysis that more the symptoms of stress experienced the students had high test anxiety level.**

Contributing factors to test anxiety among the selected students was studied using multiple regression analysis

Results of multiple regression analysis on test anxiety in relation to a set of predictor variables such as conspectus of selected students, resources available, parent involvement, support accessible from supportive network, symptoms of stress and stress coping strategies of the selected eleventh standard students are discussed below.

Table 44a: Contributing Factors to Test Anxiety among Eleventh Standard Students

Regression details	Predictor variables	UnStandardized Co-efficient		Standardized Co-efficient	't'
		B	$S.E._B$	Beta	
R=0.584 R^2=0.341 Adjusted R^2=0.312 Std. Error of the Estimate=7.191 F =11.767**	Age	-0.625	0.571	-0.042	-1.094^{NS}
	Family Size	1.013	0.668	0.065	1.515^{NS}
	Family type	0.754	0.857	0.037	0.880^{NS}
	Number of siblings	1.397	0.955	0.057	1.463^{NS}
	Mode of transportation to school	-0.007	0.162	-0.002	-.042^{NS}
	Factors influencing selection of school	-0.039	0.233	-0.006	-0.166^{NS}
	Time availability	-0.188	0.085	-0.091	-2.214*
	Contribution of time towards various activities	-0.049	0.164	-0.012	-0.300^{NS}
	Types of fatigue experienced	0.505	0.145	0.145	3.479**
	Financial assistance from parents for academic activities	1.088	0.358	0.127	3.042**
	Pocket money	-0.076	0.076	-0.040	-1.001^{NS}
	Food preferences	-0.034	0.181	-0.007	-0.186^{NS}
	Parent involvement	0.122	0.146	0.032	0.837^{NS}
	Moral support from supportive network	-0.071	0.170	-0.022	-.421^{NS}
	Psychological support from supportive network	-0.031	0.153	-0.011	-.203^{NS}
	Academic guidance from supportive network	-0.082	0.155	-0.028	-.528^{NS}
	Psychological symptoms of stress	0.492	0.092	0.255	5.362**
	Emotional symptoms of stress	0.344	0.090	0.199	3.816**
	Physical symptoms of stress	0.083	0.084	0.046	0.993^{NS}
	Behavioral symptoms of stress	0.111	0.083	0.064	1.335^{NS}
	Stress coping strategies	-0.053	0.113	-0.020	-0.471^{NS}

** Significant at p<0.01 level, * Significant at p<0.05 level, NS Not Significant

The results revealed a significant contribution by some of the predictor variables on student's test anxiety level (F=11.767) at p<0.01 level. From the Adjusted R^2 value (Adjusted R^2 = 0.312), it is found that the above variables contribute 31 per cent of the total variance to the dependent variable, test anxiety. The 't' values show that the relationship between test anxiety and types of fatigue experienced, financial assistance from parents for academic activities, psychological symptoms of stress and emotional symptoms of stress contribute significantly to student's test anxiety significant at p<0.01 level. The 't' values also show that the relationship between test anxiety and time availability contribute significantly to student's test anxiety significant at p<0.05 level.

The β – values shows that family size, family type, number of siblings, type of fatigue experienced, financial assistance from parents for academic activities, parent involvement, psychological symptoms of stress, emotional symptoms of stress, physical symptoms and behavioral symptoms of stress contribute to overall stress among eleventh standard students. Among these psychological symptoms of stress with β value of 0.255 made the strongest contribution to test anxiety among eleventh standard students. The negative β values exhibit that age, mode of transportation to school, factors influencing selection of school, time availability, contribution of time towards various activities, pocket money received, food preferences, accessible moral support, psychological support, academic guidance from supportive network and stress coping strategies had inverse contribution to student stress among the selected students. It is observed that time availability with β value of -0.091 made the least contribution to student's test anxiety. **It could be inferred that more the time available to the students for academic work there was reduction in test anxiety level among the eleventh standard students.**

Contributing factors to test anxiety among twelfth standard students

Results of multiple regression analysis on test anxiety in relation to a set of predictor variables such as conspectus of selected students, resources available, parent involvement, support accessible from supportive network, symptoms of stress and stress coping strategies of the selected twelfth standard students are discussed below.

Table 44b: Contributing Factors to Test Anxiety among Twelfth Standard Students

Regression details	Predictor variables	UnStandardized Co-efficient		Standardized Co-efficient	't'
		B	$S.E._B$	Beta	
R=0.452 R^2=0.205 Adjusted R^2=0.170 Std. Error of the Estimate=7.316 F =5.859**	Age	0.045	0.054	0.036	0.842^{NS}
	Family Size	0.553	0.652	0.042	0.847^{NS}
	Family type	-0.687	0.891	-0.036	-0.771^{NS}
	Number of siblings	1.721	0.991	0.075	1.736^{NS}
	Mode of transportation to school	-0.286	0.168	-0.072	-1.704^{NS}
	Factors influencing selection of school	-0.432	0.234	-0.078	-1.846^{NS}
	Time availability	-0.105	0.082	-0.058	-1.286^{NS}
	Contribution of time towards various activities	-0.249	0.177	-0.062	-1.405^{NS}
	Types of fatigue experienced	0.295	0.137	0.102	2.155*
	Financial assistance from parents for academic activities	0.129	0.363	0.016	0.354NS
	Pocket money	0.179	0.082	0.097	2.190*
	Food preferences	0.187	0.194	0.043	0.960^{NS}
	Parent involvement	-0.113	0.136	-0.035	-0.836^{NS}
	Moral support from supportive network	-0.443	0.192	-0.143	-2.303*
	Psychological support from supportive network	0.139	0.168	0.050	0.829^{NS}
	Academic guidance from supportive network	0.160	0.154	0.055	1.036^{NS}
	Psychological symptoms of stress	0.420	0.111	0.220	3.772**
	Emotional symptoms of stress	0.064	0.113	0.038	0.567^{NS}
	Physical symptoms of stress	-0.045	0.097	-0.026	-0.466^{NS}
	Behavioral symptoms of stress	0.202	0.096	0.117	2.110*
	Stress coping strategies	-0.055	0.093	-0.027	-0.588^{NS}

** Significant at p<0.01 level, * Significant at p<0.05 level, NS Not Significant

The results revealed a significant contribution by some of the predictor variables on student's test anxiety level (F=5.859) at p<0.01 level. From the Adjusted R^2 value (Adjusted R^2 = 0.170), it is found that the above variables

contribute 17 per cent of the total variance to the dependent variable, test anxiety. The 't' values show that the relationship between test anxiety and psychological symptoms of stress contribute significantly to student's stress significant at $p<0.01$ level. The 't' values also show that the relationship between test anxiety and types of fatigue experienced, pocket money received, accessible moral support from supportive network and behavioral symptoms of stress contribute significantly to test anxiety significant at $p<0.05$ level.

The β – values shows that age, family size, number of siblings, type of fatigue experienced, financial assistance from parents for academic activities, pocket money received, food preferences, psychological support, academic guidance from supportive network, psychological symptoms of stress, emotional symptoms of stress and behavioral symptoms of stress contribute to overall stress among twelfth standard students. Among these psychological symptoms of stress with β value of 0.220 made the strongest contribution to test anxiety among twelfth standard students. The negative β values exhibit that family type, mode of transportation to school, factors influencing selection of school, time availability, contribution of time towards various activities, parent involvement, accessible moral support, physical symptoms of stress and stress coping strategies had inverse contribution to student's test anxiety among the selected twelfth students. It is observed that accessible moral support from supportive network with β value of -0.143 made the least contribution to student's test anxiety**. It could be inferred that more the accessibility of moral support from supportive network to the students for academic work there was reduction in test anxiety level among the twelfth standard students.**

Phase 2: Intervention programme

4.11. Conduct of Intervention Programme among Selected Twelfth Students

Based on the outcome of the survey results, it was found necessary to organize an intervention programme for the students, who had test anxiety and stress. Test anxiety strategies are intended to reduce the effects of stress due to apprehension of examinations. The goal is not to eliminate anxiety,

since a reasonable amount of stress can be beneficial in motivating most students. Rather, the goal is to reduce anxiety to a manageable level and to empower students so that they have a control in testing situations. Students should become familiar with a variety of the test anxiety strategies.

Different combinations of strategies may be used to develop stress management plans for different testing situations. It is important to have several options for dealing with test anxiety since exams in various courses and subjects may affect the student differently. As the selected students for the study were from higher secondary classes, it was important to concentrate on improving their physical and mental health, manage negative emotions like fear, anger and worry, overcome inferiority complex and manage test anxiety. Hence, the intervention programme using auto suggestion was conducted among 90 twelfth standard students. The effect of intervention programme organized for the students are discussed under the following headings.

4.11.1. Difference in stress level among the selected twelfth students before and after the conduct of intervention programme

4.11.2. Difference in test anxiety level among the selected twelfth students before and after the conduct of intervention programme

4.11.1. Difference in stress level among the selected twelfth students before and after the conduct of intervention programme

The percentage response of stress level among the selected twelfth students before and after the conduct of intervention programme is shown in Table 45 and Figure 18.

Table 45: Stress Level among the Selected Twelfth Students Before and After the Conduct of Intervention Programme

Stress level	XII (N=90)			
	Before Intervention		After Intervention	
	N	%	N	%
Good control (0-20)	0	0	21	24
Low level (21-40)	0	0	65	72
Medium level (41-60)	90	100	4	4
High level (61-80)	0	0	0	0

Above Table indicate that the selected ninety twelfth standard students had medium level stress before intervention. After intervention, however 24 per cent had good control over stress, 72 per cent had low level of stress and four per cent retained medium level of stress. The missing support, guidance and personal care could be the reasons for building of exam stress. Probably if they practice the auto suggestions regularly they could overcome stress.

Kavitha and Gayatridevi (2010) conducted study on 'Management of Anxiety in X and XII standard students through Positive Therapy'. After positive therapy, there was a drastic reduction in the negative emotions and symptoms among the students. Kalaivani and Rohini (2007) also proved that positive therapy to be very effective in managing test anxiety.

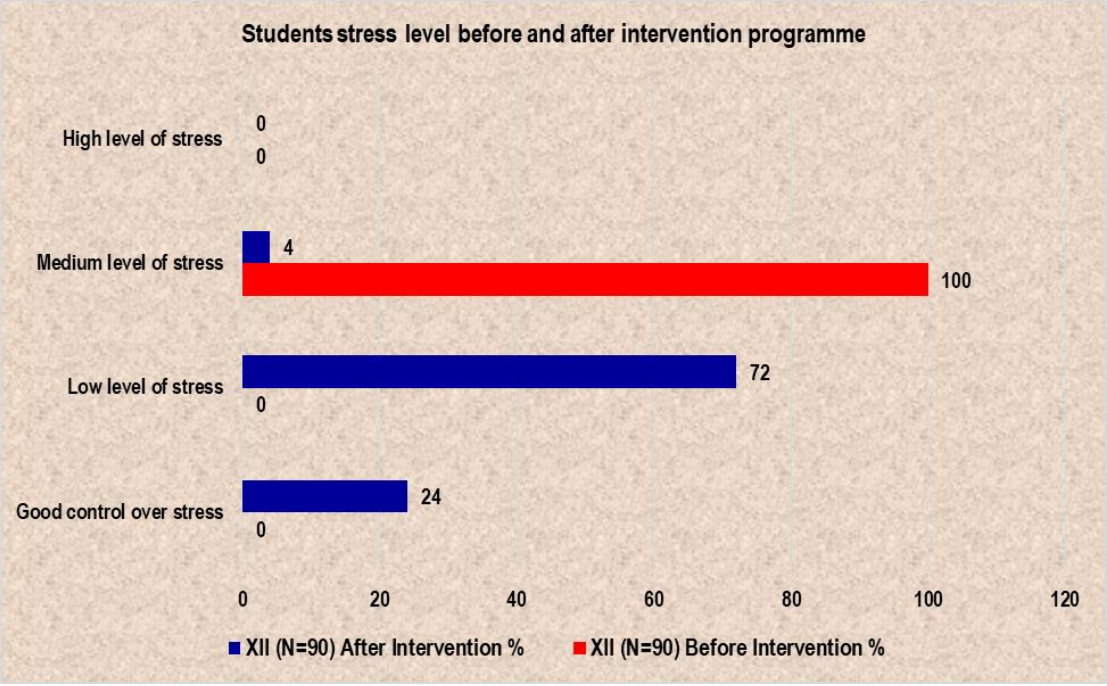

Figure 18: Student stress level reported before and after intervention programme

Susan and Hemalatha (2003) conducted a research on, 'Enhancement of Self-concept and Management of Anxiety in Tenth Standard Students through Positive Therapy'. Using self-concept Rating Scale (Hemalatha, 2000), Positive Therapy was effective in enhancing the mean self-concept and academic achievement from low to high levels and in reducing the anxiety level from high to low/moderate levels. Positive Therapy

also helped in modifying negative thoughts and fear of exams. Vijayalakshmi and Vijayalakshmi (2003) conducted a research on 'Management of Anxiety through Positive Therapy in X Standard Students facing Board Examination'. Positive Therapy was given for five days a week for 3 weeks to the subjects in the experimental group. After treatment, the results revealed that the mean anxiety had reduced significantly and academic achievement had increased in the experimental group, whereas in the control group, the mean anxiety increased to 'Very High' level and the academic achievement remained low. The results highlighted that positive therapy must be introduced in schools.

4.11. 2. Difference in test anxiety level among the selected twelfth students before and after the conduct of intervention programme

Table 46 and Figure 19 represent the test anxiety level among the selected twelfth students before and after the conduct of intervention programme.

Table 46: Test Anxiety Level among the Selected Twelfth Students Before and After the Conduct of Intervention Programme

Test anxiety level	XII (N=90)			
	Before Intervention		After Intervention	
	N	%	N	%
Good control (10-19)	0	0	20	23
Mild anxiety (20-35)	66	73	66	73
High anxiety (36-50)	24	27	4	4

Above Table indicate that among the selected ninety, twelfth standard students 73 per cent had mild anxiety and 27 per cent had high test anxiety level before intervention. After intervention, 23 per cent shifted to good control over test anxiety, 73 per cent experienced mild anxiety and only four per cent retained high level of test anxiety. Constant fear over approaching board exam could be the reason for building of test anxiety. Probably if they practice the tips to overcome exam fear regularly they can overcome test anxiety. It was encouraging to note that knowledge gained through the intervention

programme has helped 23 per cent of twelfth standard students with high anxiety to reduce test anxiety and have good control over it.

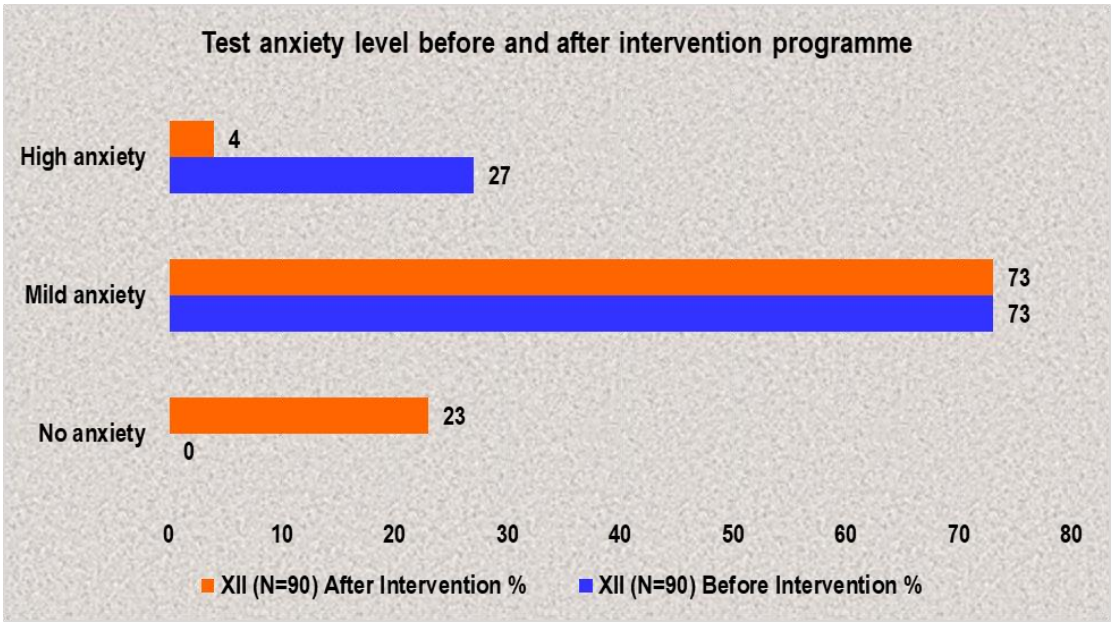

Figure 19: Test Anxiety Level Before And After Intervention Programme

Phase 3:

4.12. Evaluation of intervention programme among selected twelfth students

Intervention programme was assessed in terms of the following.

4.12.1. Impact of intervention programme on stress level among the selected twelfth students

4.12.2. Impact of intervention programme on test anxiety level among the selected twelfth students

4.12.1. Impact of intervention programme on stress level among the selected twelfth students

Table 47 represents the statistical analysis of the impact of intervention programme on stress level among the selected twelfth students.

Table 47: Impact of Intervention Programme on Stress Level among the Selected Twelfth Students

Student stress level	Class	N	Mean	Std. Deviation	Std. Error Mean	't' value	p value
Before	XII	90	46.48	4.332	0.457	23.949**	0.000
After	XII	90	25.77	8.570	0.903		

** Significant at p<0.01 level

Before intervention, the mean scores of student stress level were found to be 46.48 among the selected twelfth students. After intervention mean score decreased to 25.77. The student stress level score revealed a highly significant reduction in the level of stress among selected students after undergoing the intervention programme at p<0.01 level. Before intervention the selected students were not conscious of wise use of available resources and effective practice of stress coping techniques. **The result of paired sample't' test clearly proves that the intervention given by the researcher had reduced the level of student stress among the selected students effectively.**

It is inferred from the study that after the intervention programme the students have realized the importance of strategies like positive therapy through autosuggestion and exhibited positive impact on stress level and also improved their overall wellbeing. Practicing the tips to burn out exam stress along with self-enhancing thoughts to use resources wisely, gain confidence they were able to face board exam without any fear. Hence it is necessary that management of the educational institutions aim to integrating such programme in their syllabus/curriculum they offer to encourage the students to approach board examination in a holistic manner. **Hence first part of Hypothesis 4 which states that there would be a significant difference in student stress level before and after the Intervention program among the selected students is accepted.**

4.12.2. Impact of intervention programme on test anxiety level among the selected twelfth students

Table 48 denotes the impact of intervention programme on test anxiety level among the selected twelfth students.

Table 48: Impact of Intervention Programme on Test Anxiety Level among the Selected Twelfth Students

Test anxiety level	Class	N	Mean	Std. Deviation	Std. Error Mean	't' value	p value
Before	XII	90	32.29	5.989	0.631	13.094**	0.000
After	XII	90	24.81	6.333	0.668		

** Significant at p<0.01 level

Paired sample't' test was applied to compare the level of test anxiety before and after intervention programme given to the selected students. Table 44 shows the impact of intervention programme on level of test anxiety among the selected twelfth students**.** The result of paired sample't' test showed a high significant difference in the level of test anxiety among students before and after intervention programme at p<0.01 level. The mean test anxiety score after intervention programme (24.81) was lesser than the mean test anxiety score before (32.29) intervention programme**. From the result, it is known that the intervention programme has brought in decreased level of test anxiety among the students.** Hence it is necessary that management of the educational institutions should aim to integrate such programmes in their syllabus/curriculum they offer so as to encourage the students to approach/face board examination in a holistic manner.

The overall result suggests marked reduction towards student stress and test anxiety level among the students after attending the intervention programme. Before intervention the selected students were not aware of the fact that the autosuggestion tool will relieve exam fear and help them to face exam with confidence towards achieving their realistic goals. After the intervention programme the realization towards the importance of self enhancing thoughts has increased, they understood that thoughts are powerful. Students were more cautious about their time and overall well-being. Hence it could be inferred from the study that the intervention programme had a positive impact on the necessity for imbibing confidence among students. Thus, the intervention programme was very successful and useful among the students as it paved way to their goal-setting with clarity and

helped them in reducing fear over exams and also helped them to face exam with laser focused confidence in working towards academic achievement. **Hence the second part of Hypothesis 4 which states that there would be a significant difference in test anxiety level before and after the Intervention program among the selected students is accepted.** The hypothesis proved that the intervention programme educated students on methods to overcome exam fear using autosuggestion tool.

Phase 4:

4.13. Report of Case Study

Kothari (2007) states that case study method is a form of qualitative analysis were in careful and complete observation of an individual or a situation is done. The object of the case study method is to locate the factors that allow for the behavior pattern of the given unit as an integrated totality. Hence a case study was conducted among ten twelfth students to find out their feedback after attending the intervention programme and then facing board exams.

Student 1: The auto suggestion tool suggested by the investigator had helped the student in reducing her test anxiety levels. She revealed that the sentences once read brightened up her mind with the factual description of mind process. It assisted in concentrating and made her to maintain concentration by being focused. Auto suggestion tool had given her a good deal of advice and reading it consistently had motivated her towards the board exam. She admitted that even though her mother as a Sanskrit professor used to advice her a lot, she was afraid of tests. Fear for exam got reduced with the passage of time as she believed the sentence in auto suggestion tool “I felt God is with me all the time” with that faith, she was not diverted to fear which eventually facilitated in blooming to success. The positive therapy customized the schedule of her life and helped to relax. The sequence of positive statements improved and enhanced her memory span, attention span and overall performance. She had secured 82 per cent in twelfth standard and joined B Tech Computer Science Engineering in SRM College of Engineering, Chennai.

Student 2: Although his father an engineer by profession and mother a postgraduate taking tuition for children in their neighborhood, the fact that he needed motivation from other sources was always true. Tips to burn out exam stress were very helpful and were like a good booster to him. He needed such valuable points at the juncture of exam time. It helped him to feel courageous and confident before taking up exams because sometimes he felt the level of confidence in him was fluctuating, the training by the researcher using auto suggestion tool helped him by keeping stress levels down, sustain confidence levels by putting consistent effort and boosted confidence which was noticed through improvements. The statements in enhancing positive attitude and thoughts being acerbic were a key to his understanding. He could notice improvement lately and had hoped it goes up a notch. He gave a feedback that “overall auto suggestion tool was a very effective move that can be taken up by any student and see the improvement in them in a very short span of time”. He scored 84 per cent in board exam and joined Electronics and Communication Engineering through counseling.

Student 3: Both of his parents were not much educated and they work for a small private firm. He was an average student and used to be afraid of physics and chemistry and could not even pass science subjects. Having used the important tips to burn out exam stress, he learnt how to manage to relax and concentrate in these subjects to score better. He started practicing deep breathing, in-between relaxing and going out for short break, which was mentioned in the brochure given to reduce the challenges of exam. He had pasted the auto suggestion tool in his study area and reading this supported him to improve on the areas where he was weak. His grandfather was his accessible support for academic guidance and helped him to develop a practice of following time table to a particular time schedule. Negative habits such as comparing marks with others and developing inferiority complex and no planned study pattern were bothering him. He concentrated in these two areas after the intervention programme and auto suggestion tool really helped him to face these challenges boldly. He improved mental strength along with physical health and now able to accept responsibility with calm mind. He secured 67 per cent in board exams and studying Electronics and

Communication Engineering in Sri Ramanujar College of Engineering, Chennai.

Student 4: With supportive parents like her mother who opted to be a fulltime homemaker for the sake of daughter's academic excellence and a busy businessman father, she scored good marks in all tests but something will be missed due to last minute preparation and was consistently loosing marks due to silly mistakes. Intervention session was very useful and she improved by able to focus well and also felt better after using tips to burnout exam stress. She felt less stressed about exams after reading the brochure; it came to her mind to follow a consistent time plan that suits her. She took extra effort to overcome the problem with time management and started to prepare for exams. The points from the auto suggestion tool like "I can achieve" also gave her the confidence to perform better and to get admission in one of the leading institution to pursue the career of her choice. Following time table at home also helped her to avoid last minute stress and confusion in mind for well-known answers. Practicing positive therapy helped her score 89 percentage and she got admission in Physiotherapy in Dr. MGR University, Chennai.

Student 5: She had passed board examination securing 90 per cent and got admission in Physiotherapy in Dr. MGR University, Chennai. She used to feel nervous before exams. It was common for her but after attending intervention programme she surrounded herself with positive vibes and having a little confidence on herself successfully helped to score good marks. The tip "Don't get confused by learning new things before few days of the exams because of chances of forgetting or getting messed up with solutions" was very helpful to her. She prepared a schedule as per exam holidays and began studies with previously prepared chapters so that she could get little confidence of knowing something. It always reminded her to carry extra pens and all necessary writing materials needed. She could write exams well and got good results.

Student 6: She was a student who knew that exam time is the most difficult time in any students' life and felt that the session by the investigator was very helpful. It taught her not to take tests as a stress or tension. It made her

understand that studies shouldn't be taken as a burden. Previously she used to try to complete everything in the portion list. She used to get mood swings but using positive therapy now tolerance level improved and felt much regulated. She could control anger and with calm mind she could change study habits and concentrate better. After intervention she did concepts which could be easy and do it thoroughly. She was very much motivated by the intervention programme and she took herself as her biggest competitor especially her laziness that she left behind to achieve her academic goals. She never let negativity come her way and tried to be positive every time by believing thoroughly that everything will be fine and that she will do great in future. She never doubted herself and she was where she wanted to be. By securing 93 per cent in board exams she is now studying BDS at Saveetha dental college, Chennai. Auto suggestion tool supported her to streamline and strengthen in achieving her long term goal of becoming a dentist.

Student 7: The student felt that intervention programme was very helpful and she could excel with 89 per cent in twelfth exam. She never believed that engineering or medical degree was the only logical next step. What mattered to her was the degree of her interest and the aptitude. Her parents and teachers helped her to have a clear mind. The ultimate choice of what to study next was left to her. She chose the course that she thought would best suit her career aspirations. Hence she chose to study B.Sc., Information Technology in Women's Christian College, Chennai. "IMPORTANT TIPS TO BURN OUT EXAM STRESS", was extremely helpful with suggestions about how to overcome exam fear. Points on gaining self-confidence during exams were very helpful personally to her. She usually felt that there was no need to get worked up with examinations. Intervention programme helped her in realizing that having a study time table is important and so is time management. Pamphlets that included the DO's and DON'T's for overcoming exam fear to be stuck on study table was very handy and provided need of the hour advices. Importance of short breaks refreshed mind and helped to store more data in mind. During short breaks it wasn't her habit to listen to music but slowly started to listen at a low volume to reduce stress. She also took up hobbies like painting, sketching and singing. Planning schedules

effectively, concentrating and relaxing when necessary were the key takeaways from the intervention programme to her success.

Student 8: The points highlighted during the intervention programme helped her to enjoy studying for exams rather than stressing out. It helped her to maintain a proper schedule making routine academic work more organized rather than studying random subjects. It helped to gain confidence and maintain a good and peaceful state of mind. Practice to hold the pen with grip helped in improving speed as well as her handwriting. Recalling efforts and mistakes made her more confident and inspired her to work harder the next day. Tips in burning exam fear helped her to be focused on studying rather than wasting time having negative thoughts or gazing at the computer and helped her stay fit and healthy. The self-enhancing thoughts were absolute stress busters and it helped her cheer up during the long study hours and sleepless nights during exams. Altogether tips in the programme were very useful and helpful and she scored 85 per cent and joined computer science engineering.

Student 9: The intervention programme helped her to stay calm during exam. It made studying completely easy and simple to understand. It helped her deal with fear, tension, and worry of study. It helped her to manage time schedule and cope up with studies. It raised her confidence level. Focusing on what she knew helped in learning things she knew better and to understand the rest very well. Reading chemistry while physics got boring helped her understand the subject very well. Customizing study time helped not only to concentrate on studies but also doing rest of the work that she was once interested. Practicing to hold the pen with grip has enhanced her speed and handwriting. She admitted that she understood the fact that stress would not help and on the other hand, enjoying the process of studying was a learning for her. She is now pursuing architectural engineering in a reputed college.

Student 10: Both her parents were working for private companies in Chennai. She has a younger sister. She started to practice autosuggestion three months before exam. She realized that she had undergone a considerable transformation for what her performance was during last academic year. She developed self confidence that she can also achieve better with the grace of

almighty. She changed her food habits and pattern of study which made her parents adore her more. With their love and support she started to concentrate on her studies and now in the college and course which she had dreamt of. She owes her successful results of board exam to the tips given by the researcher to burnout exam stress that she used regularly before she started studies. It was extremely helpful for her higher secondary board exams. She sincerely practiced all the points and it gave her a belief that she isn't inferior and grumbling about her friends also reduced. She started studying regularly for longer periods than before by taking short breaks in between. During study time she avoided using mobile phones and watching television program instead took up to play with her sister. She also kept speaking to her grandparents which showed a big change in her eating habits as well. She stopped junk foods which were her favorite; her eating pattern was taken over by millets, fruits and nuts. It helped her keeping her body light and energetic well enough to study and grasp concepts easily. By seeing her performance her sister has also started using it.