THE YOGIC INSIGHT

EFFECT OF YOGA AND MEDITATION PROTOCOL ON THE ACADEMIC STRESS OF SENIOR SECONDARY SCHOOL STUDENTS OF CHANDIGARH

*DR. SAPNA NANDA
**SUMANT BATISH
***MANISH KUMAR

ABSTRACT

It is found in several studies that Yoga and Meditation have a positive effect on our body and mind and helps to control the stress. In the present study, the investigators tried to manage the academic stress of school students during the COVID-19 pandemic through yoga and meditation protocol and access the effect of intervention both qualitatively and quantitatively.

The objective of the present study was to see the effect of Yoga and Meditation protocol on the academic stress. The subjects for this study were selected from different Government Senior Secondary Schools of Chandigarh. A total of 300 students were chosen at random for the study. The Independent Variable was Common yoga protocol, while the dependent variable was the Academic Stress. Subjects were divided in two groups. Amongst them 150 subjects were selected for control group on the basis of pre score while remaining other subjects (n=150) were selected as experimental group. There were three streams Science, Commerce and Humanities and 50 students were taken from the each stream randomly.

In this study Academic Stress Scale developed by Abha Rani Bisht (BBSS) scale was used to assess the level of students in pre and post-test of all subjects.

KEYWORDS: Yoga, Meditation, and Academic Stress.

****
***Principal**, Govt. College of Yoga Education & Health, Chandigarh
****Yoga Instructor,** Govt. College of Yoga Education and Health, Chandigarh

*****Project Assistant** under SATYAM Project at Government College of Yoga Education and Health Chandigarh

INTRODUCTION

Yoga encourages mental and physical relaxation, which helps reduce stress and anxiety. The physical postures promote flexibility, relieve tension, and alleviate pain. Yoga poses may help you release physical blockages like muscle knots, helping release emotions and tension.

Cognitive Science as an interdisciplinary endeavour that interfaces with Psychology, Neuroscience, Medicine, Computer Science and Philosophy is well placed to address the different aspects of yoga and meditation research. The research on yoga and meditation would also help in solving fundamental problems in cognitive science.

As we know the current age of speed and competition has increased the stresses and strains resulting in an increasing occurrence of lifestyle-related health problems and purposely managers' lives have become a never ending race against time, technology, and targets. This race creates tension, which leads to dissatisfaction and irritation and finally manifests itself as psychological and physiological stress with mental and emotional drain.

This contemporary lifestyle intensifies the stress leading to "Excessive Tension" and consequent worsening in "Executive Efficiency." One of the gradually more popular tools to overcome this original challenge is physical activity. There is growing proof that has established the payback of physical exercises in preventing lifestyle-related diseases such as main prevention of diabetes, avoidance of cardiac diseases through control over major risk factors such as smoking, lipids, obesity, and stress, better quality of life of cancer patients, positive health in normal persons through better physical fitness, and stress reduction.

Yoga, which is measured to be a tool for both physical and mental development of an individual, is being documented around the globe only in the last century although it has been practiced in India over several centuries to promote positive health and well-being. It gives solace for the restless mind and can give great relief to the sick. It has become quite fashionable even for the common man to keep fit.

With rising scientific evidence, yoga is emerging as a significant health behaviour-modifying practice to achieve states of health, both at physical and

mental levels. Several studies have demonstrated the beneficial effects of yoga on health behaviour in many lifestyle-related somatic problems such as hypertension, bronchial asthma, diabetes including some psychiatric conditions such as anxiety neurosis and depressive illness.

The spread of COVID-19 poses a threat to humanity, as this pandemic has forced many global activities to close, including educational activities. To reduce the spread of the virus, education institutions have been forced to switch to e-learning using available educational platforms, despite the challenges facing this sudden transformation. This transformation has created a lot of academic stress among students due to change in mode of learning which has created numerous challenges for the teacher as well as students. There was a marked drop in student interest in their studies, due to lack of support and availability of devices, internet connectivity and also linked to a fall-off in physical engagement with school teacher during the pandemic. All these challenges increased the academic stress faced by senior secondary students.

In the present study, the investigators tried to manage the academic stress during the COVID-19 pandemic. Through yoga and meditation protocol and access the effect of intervention both qualitatively and quantitatively.

OBJECTIVE OF THE STUDY
The following objective guided the current investigation:
❖   To study and compare academic stress among boys and girls students of science, commerce and humanities stream.

METHODOLOGY
The present study was experimental in nature. Pre-test and post-test experimental design has been used. Yoga practice is an independent variable whereas Academic Stress is a dependent variable were assessed. Common yoga protocol were followed to manage.

SAMPLE
Stratified Random Sampling Technique was used in which 10 Government Schools from Chandigarh was selected. Random sampling method was used to select 100 students each from science, commerce, and Humanities for the collection of data. Sample was consist of a total 300 Secondary School students from XIth / XIIth class. Both boys and girls were selected.

VARIABLE SELECTED

1. **Independent Variable:** Common Yoga Protocol

2. **Dependent Variable:** Academic Stress

TOOL USED

The following tools and techniques were used for collection of information:

1. Academic Stress Scale developed by Abha Rani Bisht (BBSS) scale for measuring Academic Stress.

2. Common Yoga Protocol used by the investigator.

3. Interview to obtain feedback on qualitative aspects of yoga.

EXPERIMEMENTAL DESIGN

In this study, the research design was based on a pre and post-test. There was two groups control and experimental, 150 students consists in the each group. Total number of sample was 300 which consists boys and girls both from science, commerce and humanities stream. Yoga intervention was given to the experimental group for four months. Tests were administered in the starting of the Intervention and at the end of the last intervention after four months.

TABLE: 1 DISTRIBUTION OF THE SUBJECTS ON THE BASIS OF STREAM

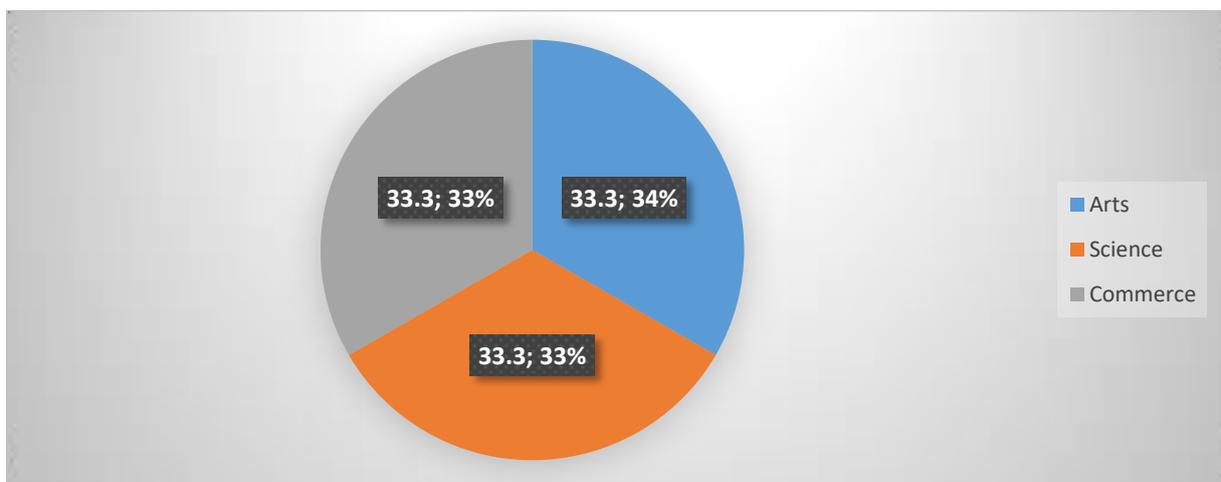| Stream		
	Frequency	**Percent**
Arts	100	33.3
Science	100	33.3
Commerce	100	33.3
Total	300	100.0

FIGURE 1: DISTRIBUTION OF THE SUBJECTS ON THE BASIS OF STREAM

Table 1; and figure 1 reveals the distribution of subjects on the basis of stream. It was reported that total number of samples (n=300) were selected from three stream in the present study. Subjects were divided in groups. Amongst them 100 subjects were selected for the each three stream as arts, science and commerce respectively.

TABLE: 2 MEAN PRE-TEST AND POST TEST SCORES OF ACADEMIC STRESS AND ITS COMPONENTS OF CONTROL AND EXPERIMENTAL GROUPS OF ART STREAM

|			Art Stream of Control and Experimental Sample									
			Control						Experimental			
		N	Mean	Std. Deviation	t-value	p-value		N	Mean	Std. Deviation	t-value	p-value
Frustration (F)	Pre	50	50.50	10.99	9.359	.0001**	Pre	50	51.46	10.40	.528	.600
	Post	50	73.32	12.60			Post	50	49.92	14.91		
Conflict (C)	Pre	50	30.80	5.88	9.989	.0001**	Pre	50	24.78	8.28	3.335	.002**
	Post	50	44.70	8.88			Post	50	31.18	11.54		
Pressure (P)	Pre	50	45.02	9.00	11.427	.0001**	Pre	50	44.44	11.23	1.012	.317
	Post	50	69.22	11.11			Post	50	41.96	10.80		
Anxiety (A)	Pre	50	27.72	5.08	9.092	.0001**	Pre	50	27.26	7.29	1.340	.186
	Post	50	41.46	9.07			Post	50	25.16	8.21		
Total Score	Pre	50	154.04	23.37	12.730	.0001**	Pre	50	147.94	26.65	.048	.962
	Post	50	228.70	33.75			Post	50	148.22	27.73		
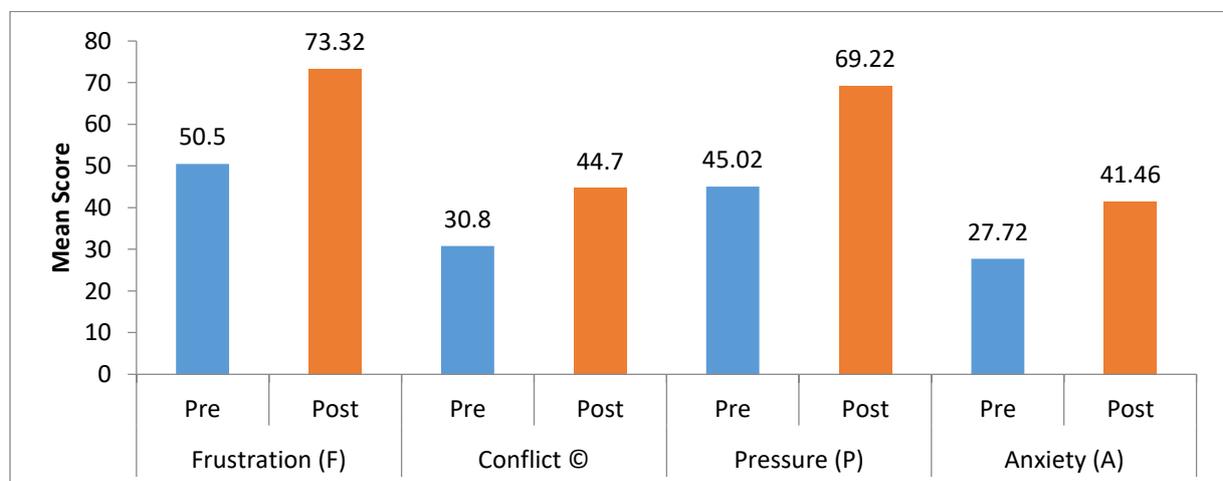
FIGURE 2.1: MEAN SCORE OF THE PRE AND POST SCORE OF CONTROL GROUP OF ART STREAM
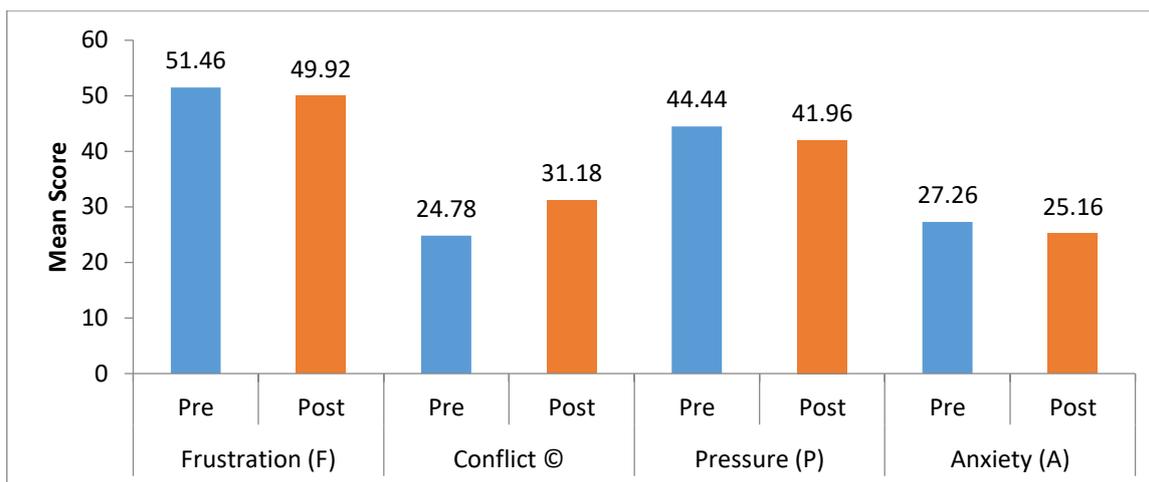
FIGURE 2.2: MEAN SCORE OF THE PRE AND POST SCORE OF EXPERIMENTAL GROUP OF ART STREAM

Table 2, Fig 2.1, 2.2 depicts Mean pre-test and post test scores of academic stress and its components of Control and Experimental groups of Art Stream. The mean scores of academic stress and its components increased significantly (P<.0001) in case of subjects of control group. The probable reason for significant increase in academic stress could be uncertainty towards their career leading to insecurity and stress which was compounded by covid 19 pandemic.

However, the mean scores of academic stress and its components decreased in all components of academic stress as well as overall scores of academic stress except in case of conflicts where the mean score increased significantly in case of subjects of experimental group. The intervention of yoga and meditation could have been contributing factor in managing stress by subjects of experimental groups.

TABLE: 3 MEAN SCORE OF THE PRE AND POST SCORE OF CONTROL AND EXPERIMENTAL SAMPLE OF SCIENCE STREAM

Science Stream of Control and Experimental Sample											
		Control					Experimental				
		N	Mean	Std. Deviation	t-value	p-value		N	Mean	Std. Deviation	t-value	p-value
Frustration (F)	Pre	50	49.06	9.39	.491	.625	Pre	50	50.72	10.74	3.385	.001**
	Post	50	50.08	9.47			Post	50	42.94	11.87		
Conflict (C)	Pre	50	31.38	11.17	2.763	.008**	Pre	50	26.66	7.44	0.26	.979
	Post	50	26.14	6.89			Post	50	26.62	7.24		
Pressure (P)	Pre	50	42.16	11.00	1.649	.106	Pre	50	46.38	9.14	3.239	.002**
	Po	5	38.7	8.26			Po	5	38.0	11.87		

	st	0	8				st	0	8			
Anxiety (A)	Pre	50	29.44	8.05	2.018	.049*	Pre	50	27.46	6.15	2.356	.022**
	Post	50	26.36	5.88			Post	50	24.62	5.97			
Total Score	Pre	50	152.04	23.89	2.059	.045*	Pre	50	151.22	21.60	3.666	.001**
	Post	50	141.36	22.26			Post	50	132.26	25.37			
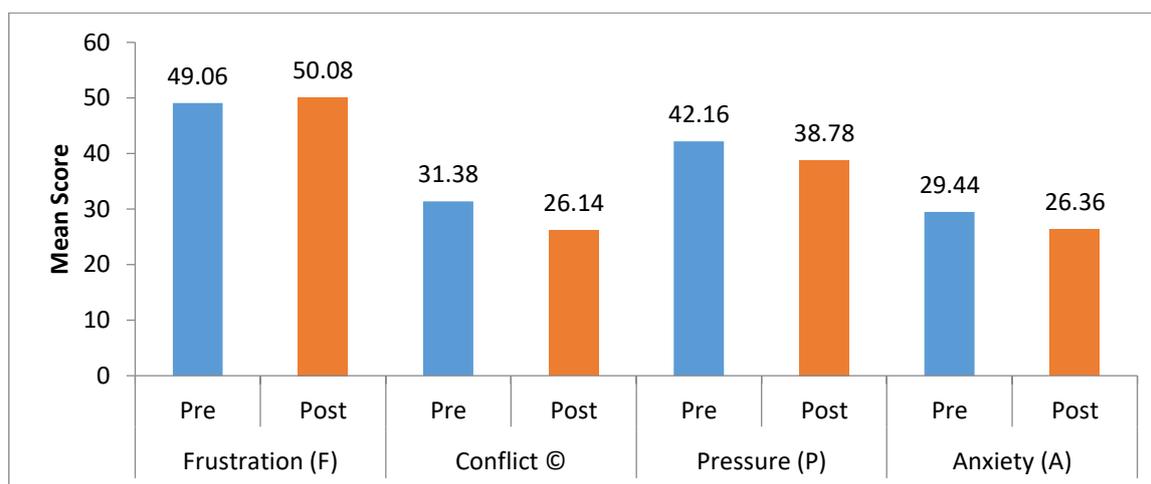
FIGURE 3.1: MEAN SCORE OF THE PRE AND POST SCORE OF CONTROL GROUP OF SCIENCE STREAM

FIGURE 3.2: MEAN SCORE OF THE PRE AND POST SCORE OF EXPERIMENTAL GROUP OF SCIENCE STREAM

Table 3 and fig 3.1, 3.2 depicts mean pre-test and post test scores of academic stress and its components of Control and Experimental groups of science Stream. The mean scores of academic stress and its components decreased, though not significantly in all dimensions of academic stress except conflict where the decrease was significant (P<.008) in case of subjects of control group. The probable reason for significant decrease in academic stress could be due to their ability to

manage stress using various stress relaxation techniques which enhanced their coping ability to handle pressures of examination, competition and others academic activities.

However, the mean scores of academic stress and its components decreased significantly except in case of conflicts (P<.979) where the mean score marginally decreased in case of subjects of experimental group. The intervention of yoga and meditation could have been an added advantage to their coping abilities to manage stress during examinations and competitions.

TABLE: 4 MEAN SCORE OF THE PRE AND POST SCORE OF CONTROL AND EXPERIMENTAL SAMPLE OF COMMERCE STREAM

| Commerce Stream of Control and Experimental Sample											
		Control					Experimental				
		N	Mean	Std. Deviation	t-value	p-value		N	Mean	Std. Deviation	t-value	p-value
Frustration (F)	Pre	50	49.00	10.22	7.844	.0001**	Pre	50	48.14	10.76	3.789	.0001**
	Post	50	66.28	15.52			Post	50	40.00	13.00		
Conflict (C)	Pre	50	27.08	7.19	6.622	.0001**	Pre	50	26.70	7.18	1.322	.192
	Post	50	40.42	11.87			Post	50	28.90	9.19		
Pressure (P)	Pre	50	48.08	11.87	3.884	.0001**	Pre	50	45.86	12.03	4.897	.0001**
	Post	50	58.50	16.03			Post	50	33.76	11.30		
Anxiety (A)	Pre	50	30.66	7.45	3.107	.003**	Pre	50	30.82	7.27	3.611	.001**
	Post	50	36.78	10.70			Post	50	25.34	7.24		
Total Score	Pre	50	154.82	27.19	6.257	.0001**	Pre	50	151.52	21.89	5.308	.0001**
	Post	50	201.98	48.53			Post	50	128.00	29.78		
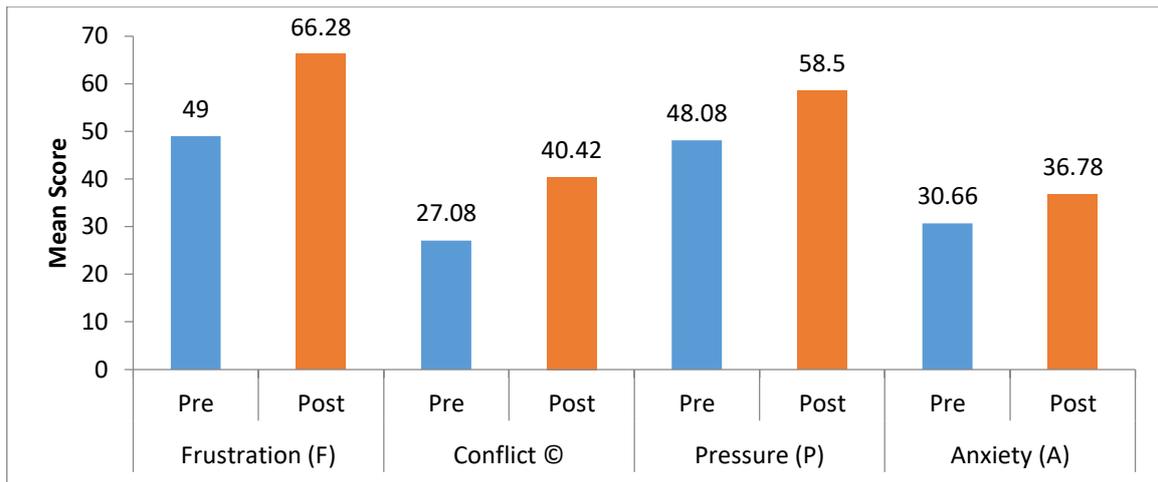
FIGURE 4.1 MEAN SCORE OF PRE AND POST SCORE OF CONTROL GROUP OF COMMERCE STREAM
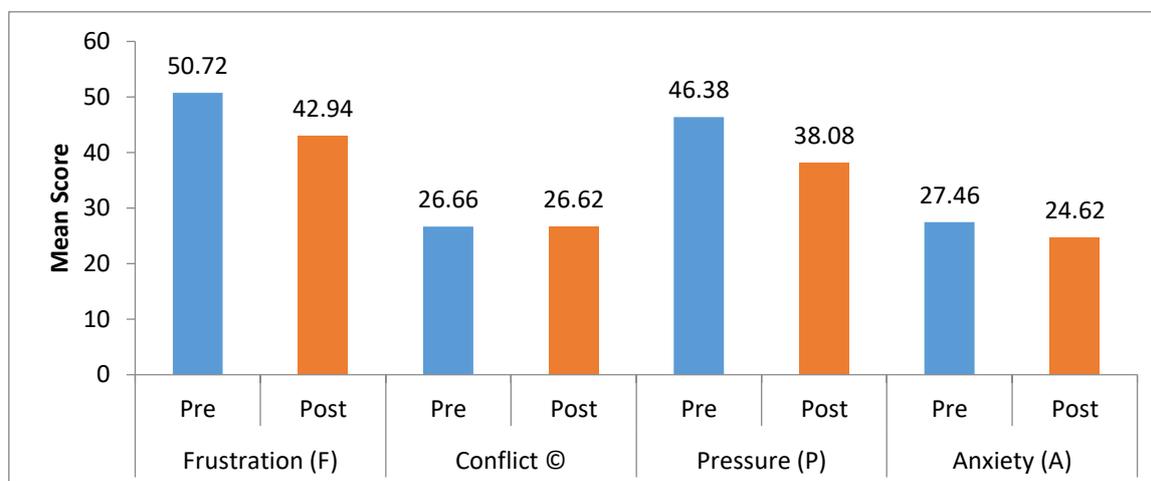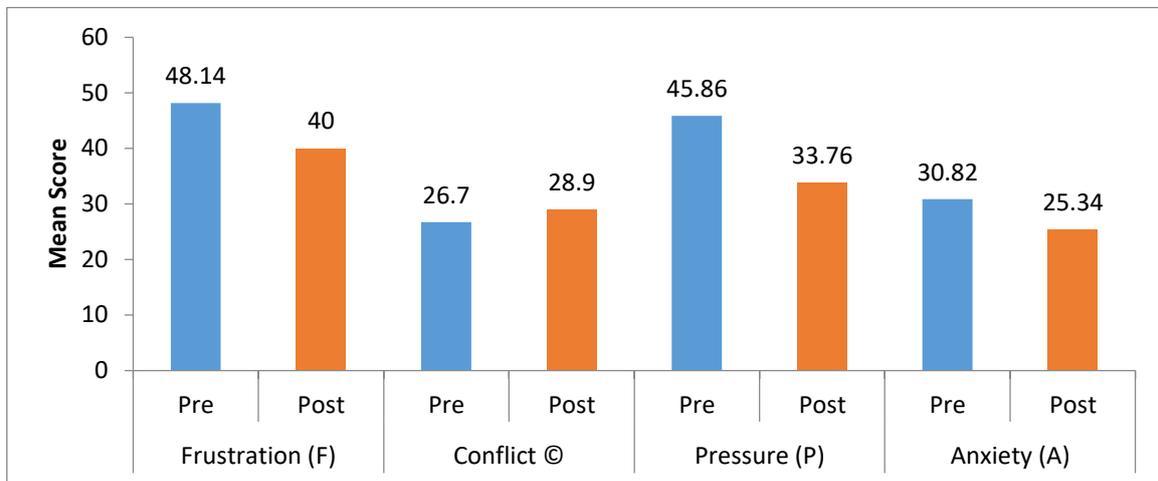

FIGURE 4.2: MEAN SCORE OF THE PRE AND POST SCORE OF EXPERIMENTAL GROUP OF COMMERCE STREAM

Table 4 and fig 4.1, 4.2 depicts Mean pre-test and post test scores of academic stress and its components of Control and Experimental groups of commerce Stream. The mean scores of academic stress and its components increased significantly (P<.0001) in case of subjects of control group. The probable reason for significant increase in academic stress of students of commerce group could be cutthroat competition for higher education accompanied by uncertainty towards their career choice which was further enhanced due to covid related stress. Moreover, no personal and vocational counselling was available during the pandemic.

However, the mean scores of academic stress and its components decreased significantly except in case of conflicts where the mean score increased, though not significantly in case of subjects of experimental group. The intervention of yoga and

meditation could have been relaxation strategy to in managing stress by subjects of experimental groups.

CONCLUSION

The present study is experimental in nature. Pre-test post-test experimental design has been used. Yoga practice is an independent variable whereas Academic Stress is a dependent variable.

Stratified Random Sampling Technique was used whereby Government Schools from Chandigarh will be selected. Random sampling method to select 100 students each from science, commerce, Humanities will be used. Sample would consist of a total 300 Secondary School students from XIth/ XIIth class. Both boys and girls will be taken.

In results it is found that Mean and median of control and experimental group are close to each other both at pre-test and post-test stage which show normal distribution of data. Mode is most occurred frequency in both pre and post score. The negative skewness was observed in pre test scores and positive skewness in post test scores of both control and experimental group. In case of control group, mean scores of overall stress as well as its components increased significantly while the mean scores of academic stress and all its components, except conflict decreased significantly in case of subjects of experimental group despite covid stress as a result of yogic practices given to them which helped in relieving their academic fear.

REFERENCES

1. Abha Subba Rao, (2020), "Academic Stress and Adolescent Distress: The experiences of 12th Standard Students in Chennai, India", University Libraries, University of Arizona.

2. Amir Mohammad Shahsavarani, et al., (2015), "Facts and Theories through Literature Review", International Journal of Medical Sciences, Vol.2, Issue. 2, pp. 230-241.

3. Auerbach, M.S., and Grambling S.E., Stress Management Psychological Foundations U.S.A: Prentice- Hall, Inc., 1998

4. Barron, P., Baum, T., & Conway, F. (2007). Learning, living and working: Experiences of international postgraduate students at a Scottish university. Journal of Hospitality and Tourism Management, 14(2), 85-101.

5. Bhargava, D., Trivedi, H. (2018). "A Study of Causes of Stress and Stress

Management among Youth". IRA International Journal of Management & Social Sciences, 11(3), pp. 108-117.

6. Dhanalakshmi, K., & Murty, K. V. S. N. (2018). Relationship between study habits and academic stress of B.Ed. trainees. Scholarly Research Journal for Humanity Science and English Language, 6, 7851-7856

7. Do Thanh Hoa, et al., (2016), "Analysing the role of Parents in the association between Academic Stress and Depression among Indian Adolescents", Vietnam Journal of Preventive Medicine, Vol.14, Issue 03, pp-64

8. Harpreet Kaur (2019), "Strategies for Coping with Academic Stress, Stress Management", International Journal of Research and Review, Vol. 6, Issue. 10, October, pp. 185-188.

9. Hashim, M.S. and Devi, K.S. (2003) Insecticidal action of the polyphenilic rich fractions from the stem bark of Streblus asper on Dysdercuscingulatus. Fitoterapia, 74, 670-676.

10. Manjula G. Kadapatti and Vijayalaxmi, A.H.M., (2012), "Stressors of Academic Stress – A Study on Pre – University Students", Indian Journal of Science and Research, Vol. 3(1), pp. 171-175

11. Maria Guadalupe Acosta, et al., (2006), "Stress in High School Students: A Descriptive Study", Journal of Cognitive Behavioural Therapy, Vol.01, Issue.01, March.

12. Prabhu, M. and Madan Mohan, G. (2014), "A Study on Stress among University Students in India", International Journal of Business and Administration Research Review, Vol. 1, Issue. 5, April – June, pp. 21-33.

13. Prathibha Sagar and Bijender Singh (2017), "A Study of Academic Stress among Higher Secondary School Students", International Journal of Creative Research and Thoughts, Vol. 5, Issue. 4, December, pp. 1864-1869.

*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*x*