



## EFFECTIVENESS OF STRESS MANAGEMENT PROGRAMME IN REDUCING ACADEMIC STRESS AND PERSONAL STRESS AMONG D.T.Ed. STUDENT-TEACHERS

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### ABSTRACT :

Stress is inevitable in any educational institution. It has become part of students' academic life due to various internal and external expectations placed upon their shoulders. Adolescents face problems associated with academic stress as they undergo transition at individual and social level. Competition and challenges define energy facet of their academic life and is the main cause of stress. Prolonged stress interferes with the student-teachers ability to learn, memorize, grades as well as lead to poor physical, emotional and mental health. Stress management



programme is one of the best methods which will help students to reduce stress effectively. Present study discusses about the effectiveness of stress management programme for reducing academic stress and personal stress in D.T.Ed. Student-teachers using different ancient techniques. **Methodology** used was quasi-experimental design-pretest and posttest non-equivalent group. Rating Scale on academic stress and personal stress was constructed and its reliability and validity were established. Reliability index as per Cronbach alpha was 0.82 and 0.81. Stratified random sampling was used. **Sample** consisted of 80 D.T.Ed. student-teachers, 50 from experimental group and 30 from control group. **Treatment**, stress management programme was implemented using different ancient techniques for 42 hours. Data was **analyzed** using descriptive and inferential statistics t-test, Wolf's test. **Findings** revealed that preservice teachers from experimental group have gained benefit from the stress management program to a minimum to moderate level extent. This shows that stress management programme had its effect in reducing academic stress to minimum to moderate level. This confirms that treatment given to experimental group was effective.

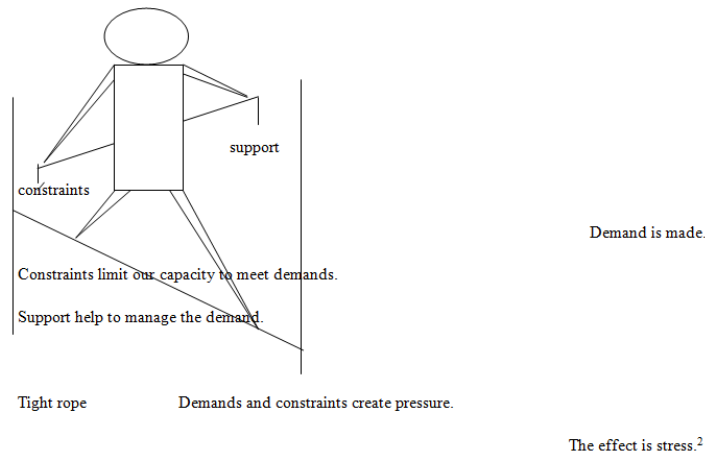
**KEYWORDS :** Academic stress, Personal stress, Stress Management Programme, Quasi-Experimental Design, Preservice Teachers.

### INTRODUCTION

Stress is any situation that evolves negative thought and feelings in a person. Stress is the body's natural response to challenges. When a student experiences high level of stress or chronic stress, regardless of his/her grade, it can interfere with their ability to learn memorize, grades as well as lead to poor physical, emotional and mental health.<sup>1</sup>

Dr. Hans Seyle, who borrowed it from physics to describe wear and tear of the body, coined the word 'stress'. Stress is a force of sufficient magnitude to distort or reform when applied to a system.

Demand (perception)



There is lot of competition among children and the success in this competition is rewarded in the form of marks or grades. A person's status and intelligence are not decided by his potentials but on marks he secures in his exams.

Pre-service teacher training program include D.T.Ed and B.Ed. student-teachers. D.T.Ed. is the diploma in teacher training elementary education. Students enroll themselves in this D.T.Ed. program after their 12<sup>th</sup> standard in the age group of 18 to 19 years. This student-teachers are in the age of adolescents. The student-teachers at D.T.Ed. level has to do lot of activities like submission of assignments on time, preparing for board exams, meeting deadlines. All these create pressure and tension on the student-teachers which leads to academic stress.

Competition and challenges define energy facet of their academic life and is the main cause of academic stress. Academic stress is something which every student faces today. It is basically work related to school or studies i.e., exam pressure, exam fear, change of subject, securing marks or grades, competing with classmates, meeting teachers or parents' expectations, time and task management.

While competing with each other the student-teacher also faces personal stress i.e., both interpersonal stress as well as intrapersonal stress. Interpersonal stress is possessed by them due to lack of communication skill and intrapersonal stress due to their own thinking about themselves.

Students should learn to manage their stress effectively and this can be done through stress management programme. It includes different techniques which help to reduce the stress of students. The techniques are followed from ancient times in our Indian society which has also been researched and proved to be effective. For the present study the stress management programme was designed by the researcher.

### STATEMENT OF THE PROBLEM

"Effectiveness of Stress Management Programme in Reducing Academic Stress and Personal Stress Among D.T.Ed. Student-Teachers."

### VARIABLES OF THE STUDY

- **Independent variable** Stress management program through ancient techniques
- **Dependent variables** a) Academic stress b) Personal stress
- **Moderator Variables** Socio-economic status b) Emotional Intelligence

### OPERATIONAL DEFINITIONS

#### 1) STRESS MANAGEMENT PROGRAMME THROUGH ANCIENT TECHNIQUES

Stress management programs intends to help student-teachers deal more effectively with stress in their lives by analyzing the specific stressors and taking positive actions to minimize their effects

using set of ancient techniques. This stress management programs aims in reducing the academic and personal stress among D.T.Ed, student-teachers through ancient techniques which are as follows:-Diet, sleep, rest, relaxation techniques, Yoga, meditation, acupressure, massage and Reiki.

## 2) ACADEMIC STRESS

For the present study academic stress is defined as the pressure or demand on the physical or mental energy of the student-teacher which arises because of the fear of academics i.e., work related to D.T.Ed. course curriculum such as preparing lesson plans, handling diverse student in class, pressure related to practice teaching, exam pressure, exam fear, securing marks or grades, choosing or changing the subject, competing with classmates, meeting parents or teacher expectations and time and task management. Further these sub variables are defined as follows: -

- **Preparing lesson plans:** The pressure on the student-teachers to prepare lesson plan and execute them well in the class cause stress in them.
- **Handling diverse students in the class:** The inability of the student-teachers to handle diverse students in the class causes stress in them.
- **Pressure related to practice teaching:** The pressure on the student-teachers during practice teaching such as to complete the lesson on time, to follow all the steps correctly, proper use of teaching aids causes stress among them.
- **Exam pressure:** The pressure on the student-teachers to prepare for the exams and perform well in the exams.
- **Exam fear:** The fear which the student-teacher experiences before the exams.
- **Securing marks or grades:** The inability of the student-teacher to secure marks to grades in the exam causes stress on them.
- **Choosing subject or changing the subject:** The inability of the student-teacher to select a subject cause stress on the student-teacher.
- **Competing with classmates:** Competition among classmates to secure marks or study well causes stress on the student-teacher.
- **Meeting parents or teachers' expectations:** The inability of the student-teacher to live up to parents or teachers' expectations causes stress on them.
- **Time and task management:** The inability of the student-teacher to manage time and task effectively causes stress on the student-teacher.

## 3)PERSONAL STRESS:

For the present study personal stress is defined as the stress associated with the personal life of the student-teachers which involves both the interpersonal as well as intrapersonal stress. Further this stress is defined as follows

### a) Interpersonal Stress

For the present study the interpersonal stress is defined as the stress possessed by the student-teachers due to lack of good relationships or communication between the peer group. The stress is seen in student-teachers while there is change in social activities, fights with peers, trouble with parents and when they make new friends.

- **Change in social activities:** When the student-teacher fail to participate actively in any social event in the class or school such as sports, project-work, being a member of a club, phoning a friend etc.
- **Fights with peers:** The fight with the peer groups causes stress in student-teacher.
- **Trouble with parents:** It is the stress caused due to family problems of the student-teacher.
- **New friends:** The interpersonal stress caused due to lack of good communication with the new friends.

### b) Intrapersonal Stress

For the present study intrapersonal stress is defined as the stress possessed by the student-teacher which is existing or occurring within the individual self or mind due to new responsibilities, financial problems, lack of academic self- concept and lack of self-efficacy.

- **New responsibilities:** The new responsibilities related to D.T.Ed. course work assigned to the student-teacher causes intrapersonal stress.
- **Financial problem:** The intrapersonal stress caused in the student-teacher due to problems related to inability to handle finance.
- **Lack of academic self-concept:** It is stress caused due to student-teachers' personal beliefs about his/her incompetency related to academic abilities or skills.
- **Lack of self-efficacy:** It is the stress among student-teachers caused due to lack of the belief of one's own ability to complete tasks and reach goals.

### OBJECTIVES OF THE STUDY

- 1) To develop and implement the Stress Management Programme for D.T.Ed. student-teachers.
- 2) To study and compare the socio-economic status scores of the D.T.Ed. student-teachers from experimental and control group.
- 3) To study and compare the emotional intelligence scores of the D.T.Ed. student-teachers from experimental and control group
- 4) To study and compare the pre-test scores of academic stress and personal stress of D.T.Ed. student-teachers from experimental and control group.
- 5) To study and compare the post-test scores of academic stress and personal stress of D.T.Ed. student-teachers from experimental and control group.
- 6) To study and compare the pre and post test scores of academic stress and personal stress for experimental and control group.
- 7) To study the effectiveness of the treatment on academic stress and personal stress of D.T.Ed. student-teachers of experimental group.

### HYPOTHESIS OF THE STUDY

For above objective null hypothesis was formulated.

### METHODOLOGY OF THE STUDY

In the present study researcher has adopt the quasi experimental method of pre-test and post-test non-equivalent group design. It can be described as follows

$$\begin{array}{ccc} O_1 & X & O_2 \\ O_3 & C & O_4 \end{array}$$

Where,  $O_1$  and  $O_3$  = Pre-test Scores  
 $O_2$  and  $O_4$  = Post -test Scores  
 Where, X : Experimental Group  
 C : Control Group

The duration of the intervention programme was 42 hours in the experimental group. The control group was not given any treatment.

### SAMPLE

Stratified random sampling was used for the selection of sample for the experimental and control group. The total sample size for the present study was 80 D.T.Ed. student-teachers out of which 50 D.T.Ed. student-teachers were in the experimental group and 30 in the control group. The sample consists of one intact class each of D.T.Ed. student-teachers from two different D.T.Ed. colleges situated in the suburb (North Mumbai).

## SCOPE AND DELIMITATIONS OF THE STUDY

The present study studies the academic and personal stress among the D.T.Ed. student-teachers in experimental and control groups. The study includes only the English medium D.T.Ed. colleges in Mumbai city. The study is restricted to D.T.Ed. college from Mumbai region only. The study does not include B.Ed. or M.Ed. colleges of education. The study does not take into account the vernacular medium D.T.Ed. colleges of education.

## TOOLS FOR DATA COLLECTION

For the present study the researcher constructed academic stress and personal stress tool. The academic stress tool consists of 40 items. Its reliability index as per Cronbach alpha was 0.82 and Spearman Brown prophecy was 0.83. The personal stress tool consists of 32 items. Its reliability index as per Cronbach alpha was 0.81 and Spearman Brown prophecy was 0.79

For the present study the researcher used readymade tool for socio-economic status and emotional intelligence. The socio-economic status tool constructed by Dr. Patel consists of 36 multiple statements. The reliability index coefficient given was 0.96 by split-half method and 0.77 by test-retest method. The emotional intelligence tool constructed by Dr. Waghmare and modified by Khade S.R. consists of 40 items. Its internal consistency reliability was ascertained using the spilt-half method and found to be 0.80 and its test-retest reliability was found to be 0.78.

## INTERVENTION PROGRAMME

Stress management programme for D.T.Ed. student-teachers of experimental group was developed by researcher. The programme included many different activities which help to reduce the stress of D.T.Ed. student-teachers. The duration of conducting the programme was 42 hours (including pre and post testing). The rationale for selecting different stress management techniques was to reduce stress of D.T.Ed. student-teachers. The stress management programme was designed as follows:

Figure 1

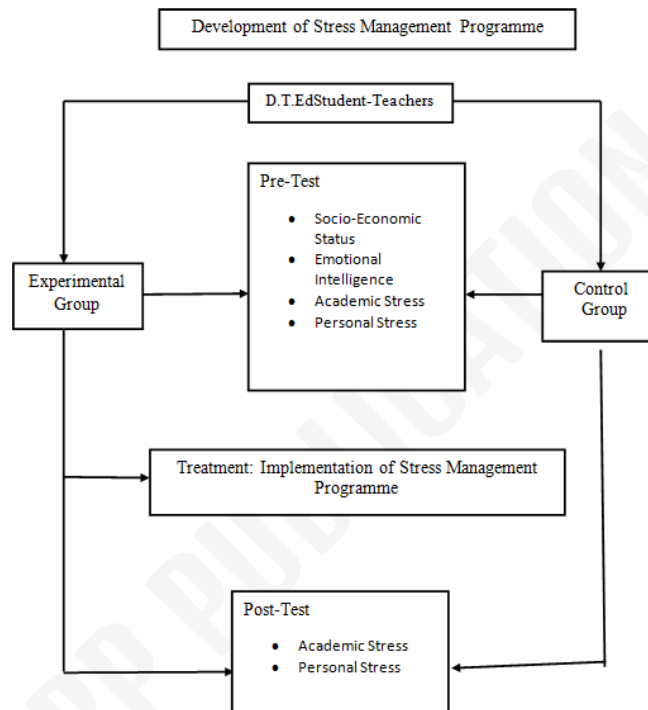
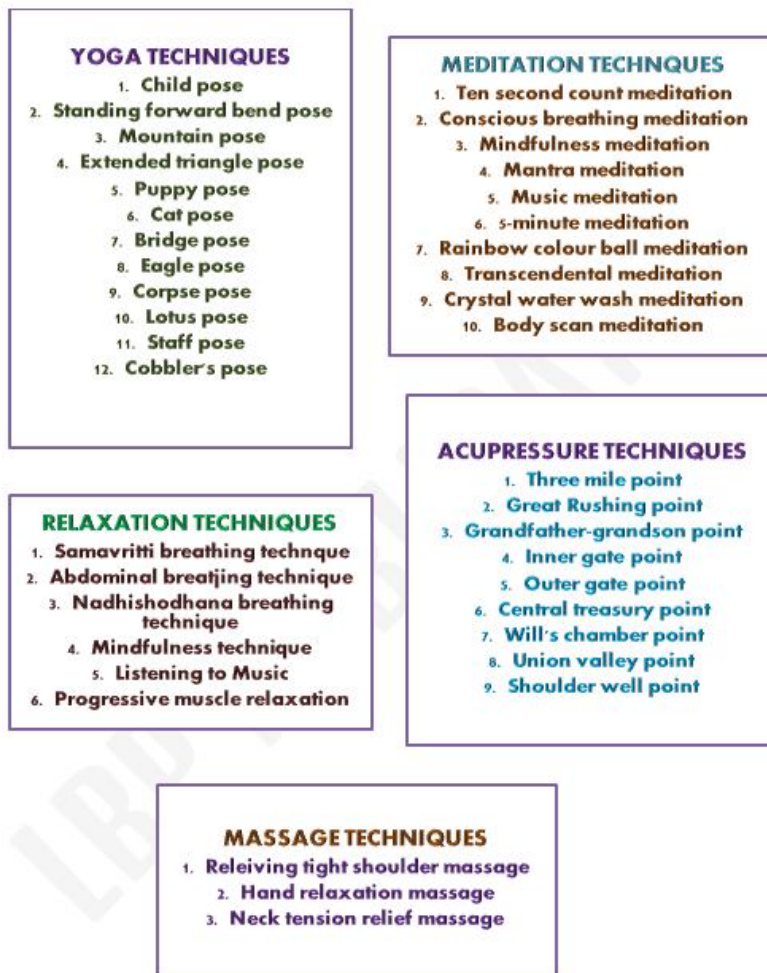


Figure 2



### ANALYSIS OF THE DATA

Data was analysed using descriptive statistics i.e. mean, median, mode, standard deviation, skewness, kurtosis and inferential statistics i.e. t-test and wolf's Formula.

### FINDINGS OF THE STUDY

Table 1 gives the t-ratio of the Socio-Economic Status scores of D.T.Ed. student-teachers from experimental and control group

**Table 1**  
Difference in The Socio-Economic Status Scores of D.T.Ed. Student-Teachers from Experimental and Control Groups

Variables	Group	df	Mean	SD	t-ratio	p value	Level of Significance
Socio-Economic Status	Experimental	78	77.58	20.03	0.98	0.32	NS
	Control		73.16	18.28			

From the above table 1, it can be seen that p value of moderate variable socio-economic status is 0.32. p value of this variable is greater than 0.05. Therefore, it is not significant and the null hypothesis is accepted.

**Conclusion-** There is no significant difference in the socio-economic status scores of D.T.Ed. student-teachers from experimental and control group.

### Interpretation

Socio-Economic status is an economic and sociological combined total measure of a person's work experience and of an individual's or family's economic and social position in relation to others, based on income, education and occupation. Thus, the factors included are educational attainment, occupation, income, wealth and deprivation. From the scores we can state that both the experimental and control group students were similar in their Socio-Economic Status. It means students from both the group possess almost similar number of family member. They were sharing the same kind of living standard. Prestige enjoyed by the family, their education level, kind of occupation, material like automobiles, kitchen items, electronics and also magazines, newspaper subscription etc., was enjoyed by both the group students on same level.

Thus, it assures that both experimental and control group were similar before administering the pre-test consisting of academic stress and personal stress as well as implementation of the treatment i.e., stress management programme.

Table 2 gives the t-ratio of the Emotional Intelligence scores of D.T.Ed. student-teachers from experimental and control group.

**Table 2**  
**Difference in The Emotional Intelligence Scores of D.T.Ed. Student-Teachers from Experimental and Control Groups**

Variables	Group	df	Mean	SD	t-ratio	p value	Level of Significance
Emotional Intelligence	Experimental	78	111.68	9.57	1.30	0.19	NS
	Control		108.7	10.47			

As from the table 2 it can be seen that p value of moderate variable emotional intelligence is 0.19. p value of this variable is greater than 0.05. Therefore, it is not significant and the null hypothesis is accepted

**Conclusion:** There is no significant difference in the emotional intelligence scores of D.T.Ed. student-teachers from experimental and control group.

### Interpretation

Both the experimental and control groups had shown same extent of self-awareness, self-regulation and social skills required in emotional intelligence. Both groups show the same ability to identify, use, understand and manage emotions in positive ways to relieve stress, communicate effectively, empathizes with others, overcome challenges and defuse conflict.

Emotional intelligence is the ability to identify, assess and control emotions of oneself, understanding others state of feelings and emotions to handle interpersonal relationships in day to day social interactions. They are equally able to perceive, assess and positively influence once own and other peoples' emotions. As a result, they had same extent of empathetic ability to interact with others.

Both the groups are in the adolescent stage. Adolescent is very important phase of one's life, full of emotional turbulence. At this stage of life, the child experiences physical and psychological development which can cause emotional and mental struggles. If during this phase student or child

have ability to understand their own emotional changes and keep balance between own behavior with other fellow friends, then it is called that they have emotional intelligence. Both the group student-teachers were equally able to set their priorities of daily actions. Emotional intelligence is a skill to understand self- action and regulating to meet the priorities of daily life in relation with others. Both the experimental and control groups showed emotional intelligence to an average level. This assures that both the group were on similar level of emotional abilities before implementing the treatment.

Table 3 shows the difference in the pre-test scores of academic stress and personal stress of D.T.Ed. student-teachers from experimental group and control group.

**Table 3**  
**Difference Between Experimental and Control Group Pre-Test Scores of Academic Stress and Personal Stress**

Variables	Group	N	df	Mean	SD	t-ratio	p value	Level of Significance
Academic Stress	Experimental	50	78	111.24	11.93	1.16	0.24	NS
	Control	30		108.3	8.86			
Personal Stress	Experimental	50	78	93.58	10.43	0.79	0.42	NS
	Control	30		95.3	7.11			

From the above table 3, it can be seen that for academic stress the p value of pre-test scores is 0.24. The p value is greater than 0.05. Therefore, it is not significant and the null hypothesis is accepted. For personal stress the p value of pre-test scores is 0.42. The p value is greater than 0.05. Therefore, it is not significant and the null hypothesis is accepted.

**Conclusion:** There is no significant difference in the pre-test scores of D.T.Ed. student-teachers from experimental and control group in the variables academic stress and personal stress.

#### **Interpretation: -**

**Academic stress: -** The pre-test scores of both the experimental and control group are close to each other. The scores are not significant, which shows that both the group student-teachers are facing similar level of academic stress.

Both the groups face academic demands like examination, answering questions in the class, showing progress in subjects, understanding what the teacher is teaching, competing with other class mates, fulfilling teachers and parents' academic expectations.

Both the group student-teachers face similar problems in selecting suitable teaching methods, planning the lesson plan and executing it in the class. Both the groups have similar stress of completing and submitting assignments. Both the group have self-confidence at same level. Both plan their lessons, use technology and creative methods in the same level. Both groups face similar problems in the class with students while executing the lesson.

The researcher conducted by **PrabuP. Suresh**<sup>3</sup> on " A study on academic stress among Higher Secondary students " show similar results. The findings of this study showed the pre-test scores were non-significant, whether the sample is of Higher Secondary students from rural and urban area, male and female students, Government and private school students. This shows that academic stress is perceived by all the students. Higher Secondary school students are also in the stage of adolescent as present study student-teachers. So, the level of academic stress perceived by students at adolescent stage is same.

**Personal stress:-**The pre-test scores of both the experimental and control group are close to each other. The scores are not significant, which shows that both the group student-teachers are facing similar level of personal stress.



Both face similar stress by the nature of work, changes in their life or personal problems. Both face interpersonal as well as intrapersonal stress.

Both the groups face similar stress when they face the class, public, participates in any intercollegiate competition, examination, cultural activities etc. Both the groups face their academic as well as personal problems.

A study conducted by **Nitasha Sharma, Amandeep Kaur**<sup>4</sup> on "Factors associated with stress among nursing students", showed that personal factors are responsible for stress in nursing students. The study reveals that the environmental factors had maximum contribution in causing stress (40%) followed by intrapersonal factors(30%). The academic factors had 19% contribution and interpersonal factors have least contribution i.e., 11%. The study shows both the interpersonal and intrapersonal factors are responsible for causing stress in students. The nursing students were also in the stage of adolescent as the present study student-teachers.

From the research studies and also from the present study pre-test scores which are not significant for both academic and personal stress shows that both the experimental and control group student-teachers perceive academic and personal stress at same level. This also indicates that the both group is at same level of stress before implementing the treatment.

Table 4 shows the difference in the post-test scores of academic stress and personal stress of D.T.Ed. student-teachers from experimental group and control group.

**Table 4**  
**Difference Between Experimental and Control Group Post-Test scores of Academic Stress and Personal Stress**

Variables	Group	N	df	Mean	SD	t-ratio	p value	Level of Significance
Academic Stress	Experimental	50	78	116.9	12.03	1.54	0.12	NS
	Control	30		112.9	9.15			
Personal Stress	Experimental	50	78	101.16	10.94	0.69	0.48	NS
	Control	30		99.6	7.02			

From the above table 4, it can be seen that for academic stress the p value of post-test scores is 0.12. The p value is greater than 0.05. Therefore, it is not significant and the null hypothesis is accepted. For personal stress the p value of post-test scores is 0.48. The p value is greater than 0.05. Therefore, it is not significant and the null hypothesis is accepted.

**Conclusion:** There is no significant difference in the post-test scores of D.T.Ed. student-teachers from experimental and control group in the variables academic stress and personal stress.

#### **Interpretation:-**

Both the experimental and control group post-test scores for academic and personal stress are close to each other. The scores are not significant, which shows that both the group student-teachers are facing similar level of academic and personal stress.

**Academic Stress:** Both the groups have shown the improvements in facing academic demands like examination, answering questions in the class, showing progress in subjects, understanding what the teacher is teaching, competing with other class mates, fulfilling teachers and parents' academic expectations.

Both the group student-teachers have shown improvements in handling problems such as selecting suitable teaching methods, planning the lesson plan and executing it in the class. Both the groups have similar stress of completing and submitting assignments. Both the group have self-confidence at same level. Both plan their lessons, use technology and creative methods in the same level. Both groups face similar problems in the class with students while executing the lesson.

**Personal Stress** Both the groups have shown the improvements in facing stress by the nature of work, changes in their life or personal problems. Both face interpersonal as well as intrapersonal stress.

Both the group student-teachers have shown improvements in handling stress when they face the class, public, participates in any intercollegiate competition, examination, cultural activities etc. Both the groups face their academic as well as personal problems.

There is no significant difference between experimental and control groups. This indicates that both the group have same level of academic stress and personal stress. This also indicates that the treatment given to the experimental group was not that effective in comparison to the control group. Both the groups have shown improvement in their stress level hence, the improvement in the experimental group may be or may not be due to treatment given. It could be the experiences the student-teachers gained in the process and learned to cope with stress similar to the control group. Since there is no treatment given to control group, even though this group shows some improvement in their stress level, this could also be attributed to experiences or activities they were involved in their college at a same time during the implementation of the treatment.

**M Pahlevani, M Ebrahimi, S Radmehr, F Amini, M Bahraminasab, and M Yazdani (2015)**<sup>5</sup> studied Effectiveness of stress management training on the psychological well-being of the nurses. The study was quasi-experimental with pre-test post-test that used a control group. In this study, the difference of post-test scores of both experimental and control group was not significant. The variances of the two groups were equal to each other for the variable of mental well-being and its components, and there was no significant difference. Therefore, according to the compliance with the Levine defaults, the results of the study research hypotheses were permissible.

For experimental group researcher mainly used five techniques Yoga, meditation, relaxation, acupressure and massage. The student-teachers of experimental group were more comfortable while doing relaxation and meditation techniques. Yoga exercises were difficult for them to do but they tried to do the exercises very well. Acupressure and massage techniques were easy to do and the student-teachers used these techniques any time when they feel stressed. Meditation and relaxation techniques were more successful and the student-teachers showed interest in doing these two techniques. These techniques require more time and practiced for long duration of time, eventually it will show the positive result in the wellbeing of the person.

Table 5 shows the difference in the pre-test and post-test scores of D.T.Ed. student-teachers from experimental group in the variables academic stress and personal stress.

**Table 5**  
**Difference Between Experimental Group Pre-Test and Post-Test Scores of Academic Stress and Personal Stress**

Variables	Test	N	df	Mean	SD	t-ratio	p value	Level of Significance
Academic Stress	Pre	50	78	111.24	11.93	2.36	0.02	Significant
	Post			116.9	12.03			
Personal Stress	Pre			93.58	10.43	3.54	0.00	Significant
	Post			101.16	10.94			

As per the above table 5 it can be seen that for academic stress the p value of pre-test and post-test scores is 0.02 and for personal stress the p value is 0.00. For both academic stress and personal stress the p value is less than 0.05. Therefore, it is significant and the null hypothesis is rejected.

**Conclusion:** - There is significant difference in the pre-test and post-test scores of D.T.Ed. student-teachers from experimental group in the variable Academic stress and not significant for variable personal stress.

**Interpretation: -**

For academic stress the mean score of post-test is higher than pre-test. Also, for personal stress the mean scores of post-test is higher than pre-test. The pre-test scores of experimental groups were significant and they showed academic as well as personal stress. But after implementation of treatment stress management programme the p value showed significant at 0.05 level which shows that there is positive effect of treatment on the experimental group. The student-teachers of experimental group learnt to control their stress through meditation, deep breathing exercises, Body-scan meditation to some extent.

Researcher mainly used five techniques Yoga, meditation, relaxation, acupuncture and massage. The student-teachers of experimental group were more comfortable while doing relaxation and meditation techniques. Yoga exercises were difficult for them to do but they tried to do the exercises very well. Acupuncture and massage techniques were easy to do and the student-teachers used these techniques any time when they feel stressed. Meditation and relaxation techniques were more successful and the student-teachers showed interest in doing these two techniques. The student-teachers confidence level was enhanced while delivering the lessons and they learnt to manage the class without getting panic.

**Academic Stress:-**This indicates that the experimental group learnt to manage the academic stress to some extent. The post-test scores are higher for experimental group due to positive effect of the treatment stress management programme. The treatment impact was minimum level for the experimental group. In the due course of time the student-teacher must have learnt to handle the pressure or demand on the physical or mental energy which arises because of the fear of academic work related to D.T.Ed.

- **Pressure related to preparing lesson plans: -** with continues support and guidance from the supervisor and with practice of yoga, meditation such as ten second count mediation, deep breathing meditation, the student-teacher learnt to prepare lesson plans, handle diverse student in class without taking much stress to some extent.
  - **Pressure related to practice teaching: -** Experimental group student-teacher develop the ability to manage this stress to some extent using relaxation techniques. The pressure on the student-teachers during practice teaching such as to complete the lesson on time, to follow all the steps correctly, proper use of teaching aids used to cause stress among them. With relaxation techniques and meditation, they are able to manage this stress to some extent.
  - **Exam pressure: -** Student-teacher from experimental group learnt with practice and time management to prepare themselves for exam properly without taking too much pressure without having exam fear to some extent.
  - **Competing with classmates: -** Student-teacher from the experimental group learnt to have a health competition among classmates and secure marks or study well without too much of stress.
- Personal Stress:** After the treatment the student-teachers were able to identify the stress associated with the personal life, which involves both the interpersonal as well as intrapersonal stress.
- **Interpersonal Stress-**Interpersonal stress was seen in student-teachers while there is change in social activities, fights with peers, trouble with parents and when they make new friends. After treatment, with the help of yoga, meditation, relaxation techniques the student-teacher from experimental group learnt to manage their interpersonal stress to some extent. The student-teachers were able to maintain a good relationships or communication between the peer group, family and was able to make few new friends to some extent.
  - **Intrapersonal Stress-** Intrapersonal stress was the type to stress student-teacher possessed within the individual self or mind due to new responsibilities, financial problems, lack of academic self-concept and lack of self-efficacy. After treatment the experimental group student-teacher was able to take new responsibilities related to D.T.Ed. course work without taking much stress about it. The

program helped the student-teacher develop the positive academic self-concept and belief of one's own ability to complete tasks and reach goals to some extent. The treatment given to them showed positive effect on reducing stress. Through scores it can be said that regular practice of the stress management techniques will help student-teachers to reduce stress.

A study conducted by **Nikithans, Tessa, Jose and Blessyprabha Valsaraj**<sup>6</sup> on "Effectiveness of academic stress management programme on academic stress and academic performance among higher secondary students in selected schools of Udupi District" showed that the pre-test scores were not significant. But after implementing the programme the significant difference is found between mean pre-test and post-test stress scores as the p value is 0.001 and t value is 5.13. This study showed that academic stress management programme is effective in reducing stress among higher secondary students.

A study conducted by **Liza Varvogli and Christine Darviri**<sup>7</sup> on "Stress management techniques: Evidence based procedures that reduce stress and promote health" showed that the stress coping techniques such as progressive muscle relaxation, autogenic training, relaxation response, guided imagery, diaphragmatic breathing, transcendental meditation mindfulness-based stress reduction techniques have positive effect on reducing stress. The authors first collected the evidences for the techniques and then implemented on the patients. The techniques were able to bring in control the blood pressure, sugar of the patients which have exaggerated due to stress. Similar techniques are also used in the present study in giving the treatment stress management programme for student-teachers.

From the research studies it can be concluded that stress management programme help in reducing stress of students.

In the present study the stress management programme included meditation techniques, deep breathing technique, transcendental meditation, Body scan meditation, yoga exercises and acupressure techniques. All these techniques helped to reduce stress of student-teachers as seen from the pre-test and post-test scores of experimental group.

Table 6 shows the difference in the pre-test and post-test scores of D.T.Ed. student-teachers from control group in the variables academic stress and personal stress.

**Table 6**  
**Difference Between Control Group Pre-Test and Post-Test Scores of Academic Stress and Personal Stress**

Variables	Test	N	df	Mean	SD	t-ratio	p value	Level of Significance
Academic Stress	Pre	30	78	108.3	8.86	2.00	0.04	Significant
	Post			112.9	9.15			
Personal Stress	Pre			95.3	7.11	2.35	0.02	Significant
	Post			99.6	7.02			

As per the above table 6 it can be seen that for academic stress the p value of pre-test and post-test scores is 0.04 and for personal stress the p value is 0.02. For both academic stress and personal stress the p value is less than 0.05. Therefore, it is significant and the null hypothesis is rejected. The treatment was not given to the control group. But from the table 2 the p value for difference between pre-test and post-test scores for control group is significant. The mean scores of post-test is higher than pre-test for both academic stress and personal stress.

**Conclusion:-** There is significant difference in the pre-test and post-test scores of D.T.Ed. student-teachers from control group in the variables academic stress and personal stress.

**Interpretation:** The treatment was not given to the control group. But from the table 4 the p value for difference between pre-test and post-test scores for control group is significant. The mean scores of post-test is higher than pre-test for both academic stress and personal stress.

**Academic Stress:** - This indicates that the student-teachers from control group learnt to manage the academic stress to some extent. The post-test scores are higher for control group which may be due to the activities conducted in their college of education, which help them to cope up with the academic stress. In the due course of time the student-teacher must have learnt to handle the pressure or demand on the physical or mental energy which arises because of the fear of academic work related to D.T.Ed.

- **Pressure related to preparing lesson plans:** - with continues support and guidance from the supervisor the student-teacher learnt to prepare lesson plans, handle diverse student in class without taking much stress to some extent.
  - **Pressure related to practice teaching:** - Control group student-teacher develop the ability to manage this stress to some extent using coping techniques. The pressure on the student-teachers during practice teaching such as to complete the lesson on time, to follow all the steps correctly, proper use of teaching aids used to cause stress among them. May be with coping techniques, they are able to manage this stress to some extent.
  - **Exam pressure:** - Student-teacher from control group learnt with practice and time management to prepare themselves for exam properly without taking too much pressure without having exam fear to some extent.
  - **Competing with classmates:** - Student-teacher from the control group learnt to have a health competition among classmates and secure marks or study well without too much of stress.
- Personal Stress:** Student-teachers were able to identify the stress associated with the personal life, which involves both the interpersonal as well as intrapersonal stress.
- **Interpersonal Stress-**Interpersonal stress was seen in student-teachers while there is change in social activities, fights with peers, trouble with parents and when they make new friends. The student-teacher from control group learnt to manage their interpersonal stress to some extent. The student-teachers were able to maintain a good relationships or communication between the peer group, family and was able to make few new friends to some extent.
  - **Intrapersonal Stress-** Intrapersonal stress was the type to stress student-teacher possessed within the individual self or mind due to new responsibilities, financial problems, lack of academic self-concept and lack of self-efficacy. The control group student-teacher was able to take new responsibilities related to D.T.Ed. course work without taking much stress about it.

From the pre-test and post-test scores of academic stress and personal stress for control group we can observe that the value for personal stress is more significant than for academic stress. The student-teachers due to daily routine of their course work managed to reduce their academic stress as well as personal stress. It might also be happened that due to practice in their course work of D.T.Ed. guidance of teacher educators it helped them reduce their stress and hence the values are significant. Thus, we can conclude that at the stage of adolescent every student has stress. But students after a particular period learn to cope up with stress.

Table 7 shows the effect size of the treatment on academic stress and personal stress of D.T.Ed. student-teachers from experimental group.

**Table 7**  
**Effect Size of Treatment on the Dependent Variables Academic Stress and Personal Stress of Experimental Group**

Mean of Post-test Experimental Group	Mean of Post-test Control Group	SD of Control Group	Magnitude	Variable	Effect size
116.9	112.9	9.15	0.43	Academic stress	Minimum to Moderate effect
101.16	99.6	7.02	0.22	Personal stress	Minimum Effect

The following criteria provided by Wolf's have been used for interpreting the results:

Magnitude	Effect Size
0.2	Minimum Effect
0.5	Moderate Effect
0.8	Maximum Effect

If the obtained  $d$  is greater than 0.8, it indicates that there is a maximum effect of the treatment on the students.

From the table 7, the magnitude of the effect of the treatment i.e. Stress management programme on the dependent variable academic stress and personal stress are 0.4 and 0.2 respectively. For dependent variable academic stress that programme have minimum to moderate effect and for personal stress the programme has minimum effect. Hence as per Wolf's criterion, the treatment is found to be effective in helping students to reduce their stress.

## DISCUSSION

**Academic stress:** The student-teachers of experimental group have effectively learnt to cope up with stress. After the treatment of the intervention programme the student-teachers showed little improvement in their ability to reduce stress. The programme impact was to minimum to moderate level. The student-teachers planned their lesson plans effectively and managed any diverse situation to some extent without taking much stress about it. Due to less stress level the student-teachers did not feel any pressure while delivering the lessons. During the examination time they feel relaxed to some extent. They learnt to manage their work in the given time and submission of assignments on time without getting worried about it. The program was implemented for 42 hours and it showed minimum level of improvement, this assures there is treatment was working. If the student-teacher practiced regularly all the techniques they learnt during treatment period, they will definitely show maximum improvement in their ability to handle and cope with stress.

**Personal stress:** The student-teachers of experimental group learnt to manage their interpersonal as well as intrapersonal stress. Peer group or peer pressure was managed by them and they work cooperatively with each other. New responsibilities were handled effectively by them.

The pre-test and post-test scores of experimental group showed significant difference in their scores and this shows that stress management programme had positive effect in reducing their stress. The values were significant at 0.05 level. Study done by **V.V.Sailaja (2017)<sup>8</sup>** conducted research on a study of academic stress of teacher training students. He also got significant difference in the pre-test and post-test scores for academic stress and concluded that the teacher training institutes should take some effective measures to reduce the academic stress of the students. Proper guidance, individual attention, free atmosphere, proper planning of academic activities will help to reduce their academic stress. Similarly, **María Guadalupe Acosta-Gómez, José María De la Roca-Chiapas, Alicia Zavala-**

**Bervena, Antonio Eugenio Rivera Cisneros, Verónica Reyes Pérez, Charles Da Silva Rodrigues, Keneth Novack (2018)**<sup>9</sup> studied stress in high school students – A descriptive study. Most of the students reported normal (54%) or lower (39%) stress levels, but women reported significantly higher stress levels than men ( $p < 0.05$ ). The main sources of stress were examinations, choosing a career path, and family troubles. The students' main responses to stress were listening to music, talking with someone about the problem, and exercise.

**Nikitha S, Tessy Treesa Jose & Blessy Prabha Valsaraj(2015)** conducted research on effectiveness of academic stress management programme on academic stress and academic performance among higher secondary students in selected schools of Udupi District.

Result showed a significant difference in pre-test post-test stress level and academic performance. The findings of the study indicated that academic stress management programme was effective in reducing academic stress but not in improving academic performance.

**PankajMandale (2010)**<sup>10</sup> studied impact of stress management on learning in a classroom setting. The purpose of the study was to determine whether in class stress management intervention can improve test performance. The findings emanating from this study suggest a possible need to provide adequate counseling services to those students in need, in order to assist them manage stress effectively. The findings may also imply that stress management skills such as deep breathing meditation should form part of this training.

**Mohsen Yazdani Sara Rezaei, Saeid Pahlavanzadeh (2010)**<sup>11</sup> conducted research on the effectiveness of stress management training program on depression, anxiety and stress of the nursing students. The mean scores of anxiety and stress showed a significant difference between the two groups (Anxiety  $p = 0.001$ ; Stress  $p = 0.011$ ); this reduction also had been remained after a month. According to the results of the study, holding stress management training program workshops in different courses of the mental health department can improve mental health of the students.

This related literature to the present study also shows that there was a significant difference in the pre-test and post-test scores for academic stress and personal stress. Stress management intervention programme were used and showed similar results to the present study. The intervention programme help to reduce their stress.

## CONCLUSION:

From the statistical analysis we can conclude that the treatment stress management programme have positive effect on reducing academic stress and personal stress only in experimental group, but if we compare it with the control group there is no significant difference. So, it shows that both the group has improve in reducing their stress level with the time which has passed from the pre-test to post-test. Due to the daily routine of course work the student-teachers learnt to manage their personal stress than academic stress as seen from the scores.

In experimental group, the effect of stress management programme is minimum to moderate for academic stress and minimum for personal stress. The intervention programme included yoga, meditation, relaxation, acupressure and massage techniques. The student-teachers used to daily practiced relaxation and meditation techniques. But yoga, acupressure and massage techniques were least practiced by student-teachers. Yoga techniques were difficult to do and it takes time for student-teachers to do them effectively. Acupressure and massage techniques needs more practice as proper points should be pressed. The intervention time was for 42 hours and the results show that implementation should be for more time. If the stress management programme is practiced for a longer duration and students make it a habit of practicing it every day then it will definitely help them to reduce their stress at maximum level.

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