SUMMARY AND CONCLUSIONS

5.1 Introduction

Since stress is here to stay, everyone needs to develop methods for invoking the relaxation response, the natural unwinding of the stress response. Relaxation lowers blood pressure, respiration, pulse rate, relaxes muscle tension and eases emotional strains. This response is highly individualized. But there are certain approaches which seem to work which include exercise, deep breathing muscle relaxation and meditation. Coping with stress involves learning new skills. Relaxes is a skill. It may not solve the stress problem by itself, but it may put one in a state where one is able to think about or reflect on a problem. There are number of techniques or disciplines which have something to do with managing stress but which offers more than just relaxation (Atkinson, 1988).

During adolescence the process of growth and development is not always smooth and without any problem. Adolescents are frequently troubled with their daily problem because they don’t have the capacity and training to solve their problems and the educational system provide no directions in this field. Many a times, some situations come up or some events occur which hamper this process and create various kinds of problems. The psychological problem that occurs during the period of adolescence may be associated with many factors such as personality needs, levels of psycho-physical and social maturity, intelligence, development of sense of identity, self discovery and need for status, independence, more of control over things and events. Socio-cultural environment factors include inappropriate parent handling, inadequate peer grouping, social and academic competitiveness and may more. Emotional upsetting, indecisions, crisis of purpose and meaning of life are some of the situations which lead to psychological problems. Further evidence that problems of adolescence are on rise come from longitudinal research indicating that rate of emotional
and behavioural problem of adolescence and children have increased over the past ten years (Achenbach & Howell, 1993)

Emotions do influence several aspects of one’s behaviour and are great motivating forces throughout the span of human life; affecting aspirations, actions and thoughts of an individual. Adolescents is a period when the behaviour getting influenced highly by the emotions (Pastey & Aminbhavi, 2006).

Stress is the response of the body and the mind towards various changes in the physical environment of a person. Though a human being undergoes changes throughout his life, adolescence is one period that witnesses most of the changes. During adolescence, an individual goes through numerous types of changes including physical, emotional, social and academic. Teenage is the period that is accompanied by maximum stress level. Teenagers need to handle stress effectively since it can lead to a variety of issues. The common problems include health issues, anxiety, depression, nervousness, problem in concentrating. Many adolescents lose their power to cope with daily stress and life in general. Thus, correct anxiety control is urgent during teenage (Walters, 2009).

Thus there is need to study the variables of academic stress and emotional stability. Various studies have been conducted up till now on the topic concerned with the subject i.e. role of relaxation, breathing and meditation on stress and emotional stability. But no attempt has been made towards a collective approach to stress and its various manifestations like depression, anxiety, mental conflict, frustration along with the study of emotional stability. That is why an attempt has now been made for the same.

Preksha meditation certainly can prove to be a big blessing for mental, physical and spiritual health and complete well being. The present study has focused on exploring the impact of different Preksha meditation technique i.e. Kyotsarga, Jyoti Kendra preksha and Svasa preksha on academic stress and emotional stability of the adolescence. The finding of
the study would not only add to the body of knowledge but will prove a
great help to psychologists and educationists in effective handling of the
adolescents. The finding would be of great significance in modern world of
stress and tension, particularly among adolescents.

5.2 Review of literature

The relevant studies related to the proposed research work have been
reviewed under the following heads:

5.2.1 Stress and Meditation

Transcendental Meditation(TM) and Stress
Zen Meditation and Stress
Buddhist Meditation and Stress
Preksha Meditation (PM) and stress

5.2.2 Emotional Stability and Meditation

TM and Emotional Stability
Zen Meditation and Emotional Stability
Buddhist Meditation and Emotional Stability
Preksha Meditation and Emotional Stability

5.3 Lacuna

After reviewing relevant scientific studies it was observed that the
impact of three important components of Preksha Meditation namely
Kayotsarga, Jyoti Kendra Preksha and Svasa Preksha is still unexplored
scientifically in forms of their effect on reducing academic stress and
promoting emotional stability. That is why it was proposed to carryout the
present study.

5.4 Statement of the Problem

The problem under investigation in the present study was stated as
under: “Efficacy of Different Preksha Meditation Techniques in Reducing
Academic Stress and Enhancing Emotional Stability of Adolescents.”
5.5 Objectives

The study was designed to attain the following objectives:

1) To study the effectiveness of *Kayotsarga* on the reduction of academic stress of senior secondary school students.

2) To study the effectiveness of *Jyoti Kendra Preksha* on the reduction of academic stress of senior secondary school students.

3) To study the effectiveness *Svasa Preksha* on the reduction of academic stress of senior secondary school students.

4) To study the effectiveness of *Kayotsarga* in enhancing the emotional stability of senior secondary school students.

5) To study the effectiveness of *Jyoti Kendra Preksha* in enhancing emotional stability of senior secondary school students.

6) To study the effectiveness of *Svasa Preksha* in enhancing emotional stability of senior secondary school students.

7) To study the comparative efficacy of *Kayotsarga, Jyoti Kendra Preksha* and *Svasa Preksha* in reducing academic stress.

8) To study the comparative efficacy of *Kayotsarga, Jyoti Kendra Preksha* and *Svasa Preksha* in enhancing emotional stability of senior secondary school students.

5.6 Hypotheses

The study was designed to test the following hypotheses:

1) *Kayotsarga* would be effective in reducing the academic stress of senior secondary school students.

2) *Jyoti Kendra Preksha* would be effective in reducing the academic stress of senior secondary school students.

3) *Svasa Preksha* would be effective in reducing the academic stress of senior secondary school students.

4) *Kayotsarga* would be effective in enhancing the emotional stability of senior secondary school students.
5) *Jyoti Kendra Preksha* would be effective in enhancing emotional stability of senior secondary school students.

6) *Svasa preksha* would be effective in enhancing emotional stability of senior secondary school students.

7) There would be differences in effectiveness of *Kayotsarga, Jyoti Kendra Preksha* and *Svasa Preksha* in reducing academic stress of senior secondary school students.

8) There would be differences in effectiveness of *Kayotsarga, Jyoti Kendra Preksha* and *Svasa Preksha* in enhancing emotional stability of senior secondary school students.

5.7 Research Design

A multiple group, pre-test and post-test, control group, randomized subjects, experimental design has been employed to conduct the present study. Subjects were assigned randomly to different experimental and control groups. Further, treatments were randomly assigned to different experimental groups. Different *Preksha* meditation techniques i.e. *Kyotsarga, Jyoti kender Preksha* and *Svasa preksha* were independent variables and academic stress along with emotional stability were dependent variables. Subjects of three experimental groups were provided training through three different *Preksha* meditation techniques i.e. *Kyotsarga, Jyoti kender Preksha* and *Svasa preksha* for four months. Whereas no training was given to control group.

5.8 Sample

5.8.1 Initial Sample

subjects who did not provide complete information in the test administered to them were not included in the sample.

5.8.2 Final Sample

On the basis of test score, 100 female adolescents in the age group of 15-17 years, with average intelligence (IQ ranging from 90 to 100), with high academic stress score (P70 or above) and with low emotional stability score (55 and below) were included in the final sample.

5.9 Tools Used

After clear conceptualization of the various aspects of the problem under investigation, a thorough search was made to find out the most appropriate tools. Following three tools were used in the present study:

a) BishtBattery of Stress Scale by Abha Rani (1987)
b) Raven’s Standard Progressive Matrices (1988)

5.10 Procedure of Data Collection

The data of the present study were collected in four phases given as under:

Phase I: The process was started 15th July 2007. In the first phase five hundred adolescent students in the age group of 15-17 years from Government Girls Senior Secondary School, Sector 20-B Chandigarh were taken. They were administered Raven’s Standard Progressive Matrices (1988), Bisht Battery of Stress Scale by Abha Rani (1987) and Emotional Stability Questionnaire. On the basis of test scores those 100 subjects who were having average intelligence; high academic stress and low emotional stability were selected for final sample. Out of 100 subjects who were included in final sample, 25 subjects were randomly assigned to each of the four groups (3 experimental and one control group)

Further, treatments were randomly assigned to different groups. Homogeneity of the final sample was tested with the help of ANOVA.
Phase II: In the second phase, the subjects were given an orientation by the researcher. She explained in detail the purpose of the present study and procedure of the experiment. She assured them that their score would be used for the research purpose only. The subjects were told the advantage of Preksha Meditation and demonstrated to them. The subjects were not allowed to undergo any other treatment or systematic training programme during the intervention period. They were asked to be punctual and regular throughout the experimental duration.

Phase III: The experimental treatment comprised Kyotsarga, Jyoti Kendra Prakesha and Svasa Preksha. All the experimental groups i.e. EG1, EG2, and EG3 were given regular training in Preksha meditation for 30 minutes daily for four months.

Phase IV: Post-test: In the fourth phase, Abha Rani Bisht battery of stress Scale by Abha Rani (1987), Raven’s Standard Matrices (1988) and Emotional Stability Questionnaire by PSY-COM services (1995) were re-administered to find out if there were any significant differences in the scores of all the students because of treatment provided to them.

5.11 Statistical Analysis

Following statistical techniques were employed for testing research hypotheses:

a) Descriptive statistics namely, Mean and SD for all variables were obtained.

b) Analysis of variance (ANOVA) was worked out to test homogeneity of the experimental and control groups and find out variance between treatment techniques.

c) ‘t’ test’ was applied to test the effectiveness of different techniques of Preksha Meditation.
d) Graphic representation was done wherever necessary. The level of significance was taken at 0.05 or less than 0.05. The significance level is marked in the tables of results as *p< 0.05 and ** p<0.01.

5.12 Results and Discussion

**Hypothesis no. 1: Effect of Kayotsarga (total relaxation with self-awareness) on academic stress of adolescents**

The effects of practice of Kayotsarga have been found to be positive on academic stress of the adolescents. The Mean post-test scores of EG1, related to academic frustration (AF), academic conflict (AC), academic pressure (AP), academic anxiety (AA) and total academic stress (AS) were statistically significant when compared to its pre-test scores. This implies that academic stress of the subjects who were provided training through Kayotsarga (EG1) has considerably decreased. Whereas there was no decrease in the academic stress of senior secondary school students belonging to the control group. This clearly indicates that the reduction in academic stress of students belonging to experimental group is due to training provided through Kayotsarga.

**Hypothesis no. 2: Effect of Jyoti Kendra Preksha (perception of centre of enlightenment) on academic stress of adolescents**

The Mean post-test scores of EG2 related to academic frustration (AF), academic conflict (AC), academic pressure (AP), academic anxiety (AA) and total academic stress (AS) were statistically significant when weighed against its pre-test scores. Further, the post-test scores of EG2 related to academic frustration (AF), academic pressure (AP), academic conflict (AC), academic anxiety (AA) and total academic stress (AS) were statistically significant when evaluated against the control values (CG). There was no decrease in the academic stress of senior secondary school students belonging to the control group where as the academic stress of the subjects who were provided training through Jyoti Kendra Preksha has
considerably decreased. It shows the effectiveness of *Jyoti Kendra Preksha* in lowering the levels of academic stress of adolescents.

**Hypothesis no. 3: Effect of *Svasa Preksha* (perception of breathing) on academic stress of adolescents**

The mean post-test scores of the adolescents who were provided training through *Svasa Preksha* i.e. EG3 related to academic frustration (AF), academic conflict (AC), academic pressure (AP), academic anxiety (AA) and total academic stress (AS) were statistically significant when matched to its pre-test scores. Further, the post-test scores of EG3 related to academic frustration (AF), academic pressure (AP), academic conflict (AC), academic anxiety (AA) and total academic stress (AS) were statistically significant when judged against the control values (CG). The results show that academic stress of students belonging to the control group did not decrease, on the contrary academic stress of the subjects who were provided training through *Svasa Preksha* has considerably decreased.

**Hypothesis no. 4: Effect of *Kayotsarga* (total relaxation with self-awareness) on emotional stability of adolescents**

The mean pre-test and post-test scores of emotional stability of EG1 when put side by side were found to be significant. It advises that emotional stability of the subjects who were provided training through *Kayotsarga* has considerably increased. Also the post-test value of EG1 and the control value (CG) when put side by side showed its statistical significance. This implies that the practice of *Kayotsarga* has successfully enhanced emotional stability of senior secondary school students who belonged to EG1.

**Hypothesis no. 5: Effect of *Jyoti Kendra Preksha* (perception of centre of enlightenment) on emotional stability of adolescents**

The mean post-test score of EG2 was statistically significant when measured against its pre-test scores. Also the post-test score of emotional stability of EG2 and CG when matched was statistically significant. The
findings recommend that emotional stability of the subjects who were provided training through Jyoti Kendra Preksha has considerably increased.

**Hypothesis no. 6: Effect of Svasa Preksha (perception of breathing) on emotional stability of adolescents**

The mean values of post-test score of EG3 were statistically significant when weighed against its post-test scores. Also the post-test score of emotional stability of EG3 and CG when put side by side was significant statistically. The results thus obtained indicates that emotional stability of the subjects who were provided training through Svasa Preksha has increased the levels of emotional stability of students of EG3, whereas the subjects of CG showed no change.

**Hypothesis no. 7: Differences in effectiveness of Kayotsarga, Jyoti Kendra Preksha and Svasa Preksha in reducing academic stress of adolescents**

The mean post-test values of total academic stress when compared between EG1 and EG2, EG1 and EG3, and EG2 and EG3 were found to be insignificant statistically. No significant differences were recorded in their effectiveness. It shows that these techniques i.e. Kayotsarga, Jyoti Kendra Preksha and Svasa Preksha do not differ from each other in reducing the academic stress of senior secondary school students. In other words, all these practices are equally effective in reducing academic stress of the students.

**Hypothesis no. 8: Differences in effectiveness of Kayotsarga, Jyoti Kendra Preksha and Svasa Preksha in enhancing emotional stability of adolescents**

The mean values of emotional stability when matched between EG1 and EG2, EG1 and EG3, and EG2 and EG3 respectively. Significant differences in mean post-test values were recorded in the effectiveness of EG1 (trained through Kayotsarga) and EG2 (trained through Jyoti Kendra Preksha).
Preksha), EG\textsubscript{1} (trained through Kayotsarga) and EG\textsubscript{3} (trained through Svasa Preksha). However no significant differences were found in the efficacy of EG\textsubscript{2} (trained through Jyoti Kendra Preksha) and EG\textsubscript{3} (trained through Svasa Preksha). It implies that Kayotsarga has enhanced emotional stability more than that of Jyoti Kendra Preksha and Svasa Preksha.

5.13 Possible Mechanism of Action of Preksha Meditation

Components

The main purpose of the practice of Preksha Meditation is to purify the mental states. Mind is constantly choked by contaminating urges, emotions and passions. It hampers the flow of wisdom. The hurdles of uncleanliness must first be removed. When the mind is cleansed peace of mind automatically surfaces. Balance of mind, equanimity and the state of well being are also experienced simultaneously (Mahaprajna, 2003).

It has been experimentally observed that meditation affects the (i) increase in stress resisting capacity of mind (ii) coordination of body and mind functions (iii) change in attitudes of aggression, anger etc. leading to pacifist mind and (iv) changes in the wave pattern in the brain and the like. Due to unidirectional concentration, it increases the internal energy and reduces its dissipation.

Mechanism of action of Kayotsarga (Self-awareness by relaxation)

As it has been realized that relaxation is a powerful tool both for preventing diseases caused by tension and stress. Hypertension, heart attacks, nervous break-downs, peptic ulcers are all caused by mental tensions. Kayotsarga –Relaxation literally means ‘abandonment of the body coupled with high degree of conscious awareness’. In practice, it is conscious suspension of all gross movements of the body resulting in relaxation of the skeletal muscles and drastic reduction of metabolic activities. This physical condition results in relieving mental tensions and is an essential pre-condition for meditation practice. Physically it is more
restful than sleep, and is the most harmless and direct antidote to psychosomatic maladies resulting from tension. Spiritually, in this process, the lifeless body is cast off, while the consciousness upwards freed from and outside its material shell.

**Mechanism of action of Svasa Preksha (Perception of breathing)**

Scientific breathing begins with a slow, calm and complete exhalation. Contraction of the abdominal muscles helps to reduce evacuate the lungs by raising the diaphragm. More complete the evacuation, greater the volume of fresh air to enter the lungs and purer the air in contact with alveolar surfaces. Unless one first breathe out fully, it is impossible to breathe in correctly.

Adequate supply of oxygen is essential for the proper functioning and vitality of the cells, it is therefore vitally important to breathe correctly so that every cell can receive oxygen. The optimum interchange of gases in the lungs occurs when the breathing is deep, complete and slow. It is impossible to concentrate the mental functioning if the breathe is not adequately regulated. It is also linked with conscious mind. Since mind is ever restless, it is extremely difficult to steady the wandering mind directly. An efficient and easy way to control mental activity is concentrated perception of breath i.e. *Svasa Preksha*. *Svasa Preksha* can be practiced in two ways i.e. *dirgha svasa* and *samavritti svasa*.

**Mechanism of action of Jyoti Kendra Preksha (Perception of psychic centers)**

Recent advance of modern science in this field has revealed that the secretions from endocrines have tremendous influence on human nature and behaviour. Through the growth of knowledge in psychology, one is able to understand the (psychological) roots of internal fear, hate, cruelty and such other emotional distortions. The analysis of human mind with the discovery of its power of projection and its hidden sub-conscious components make it unnecessary to ascribe mere mystical and ritual form to
meditation. And with the substitution of knowledge for ignorance in the field of co-ordination of neuro-endocrine system and their profound influence upon the mental states and tendencies of an individual, myths and superstitions about meditation are being replaced with scientifically established facts. It is now recognized that meditation is not an irrational, emotional or religious experience but a deliberate mental operation of psychoanalysis and psychotherapy.

5.14 Educational Implications of the Findings

The concept of human development is fundamental to education. Educational philosophers as diverse as Plato and John Dewey have stated that education is most fundamentally about promoting full human development. As Dewey noted one hundred years ago, "Here individualism and socialism are at one. Only by being true to the full growth of all the individuals who make it up, can society by any chance be true to itself (Dewey, 1980).

Robinson (2004) states that in the moment-to-moment awareness of meditation practice is revealed the constructed nature of the egoic self and the ways in which belief structures are solidified, defended, and let go. The implications of the contemplative journey for transformative and integrative learning are investigated in the light of insight gleaned from this experience.

As the compulsion of competitive examination has effected major changes in today’s educational system, students are stressed with long study hours and hectic schedule to succeed in competitions. This in turn exerts tremendous stress on them causing terrible damage to the health of the students and makes them emotionally unstable. The findings of this research indicate that Preksha Meditation is the right solution for today’s stress filled education. A little time devoted to practice of Preksha Meditation would bring radical changes in the performance of the students.
*Preksha Meditation* can be initiated by practice of the right kind breathing, which brings many positive changes in the body and mind. Proper regulation of respiration by the conscious mind results in the development of the controlled activity of the mind. *Svasa Preksha* i.e. Perception of Breathing is an efficient and easy way to control mental activity and restlessness of mind. One can easily pacify the passions by regulating the breath. Stress of mind and body can be eliminated with the practice of *Kayotsarga* i.e total relaxation with self-awareness. It is a conscious suspension of all gross movements of the body resulting in relaxation of the skeletal muscles and reduction of metabolic activities. Calmness and emotional stability can be restored with the practice of *Jyoti Kendra Preksha* i.e. Perception of centre of Enlightenment. Perception of bright white colour on this centre is an excellent tool for subduing all sorts of urges, impulses and excitements. These practices also create an optimistic temperament, which is the most valuable asset of an individual. Such a temperament helps the individual in handling own and others problems. Thus it creates and improves co-operation in educational atmosphere.

The out come of this research indicates clearly that various kinds of problems related to stress and emotional stability among the students can be managed through integration of *Preksha Meditation* with education. Various kinds of modules of *Preksha Meditation* can be introduced in educational curriculum. Other implications may be observed as under:

Introduction of *Preksha Meditation* would increase the general discipline in the educational system by providing peaceful atmosphere for study. It will also improve the results.

Teachers would also be benefited by practice of *Preksha Meditation* as they will be able to perform their task more effectively and will be able to create meditative and stress free atmosphere during teaching hours.
Most benefited part of education system would be students as they will be able to improve their concentration in the educational work by elimination of stress related problems like anxiety, conflict, frustration and pressure through the practice of Preksha Meditation.

All above benefits can be obtained by introducing Preksha Meditation as a practice in the institutional curriculum for students as well as teachers.

Finally, it can be said that implications of practices of Preksha Meditation like Kayotsarga, Jyoti Kendra Preksha and Svasa Preksha can efficiently remove academic pressure and anxiety; eliminates conflicts; enhances emotional stability and vitalizes an individual for satisfactory performance in the area of student’s work and relationship.
Frijda & Scherer (2009) have recently suggested that the following features of emotion are relatively uncontroversial and are generally seen as being of central importance to the understanding of the phenomenon.

1. Emotions are elicited when something relevant happens to the organism, having a direct bearing on its needs, goals, values and general well-being. Relevance is determined by the appraisal of events on a number of criteria, in particular the novelty or unexpectedness of a stimulus or event, its intrinsic pleasantness or unpleasantness and its motivational consistency, i.e. its conduciveness to satisfy a need, reach a goal, or uphold a value or its ‘obstructiveness’ to achieving any of those (Scherer 2001; Ellsworth & Scherer 2003).
19. Emotions prepare the organism to deal with important events in their lives and thus have a strong motivational force, producing states of action readiness (Frijda 2007).

20. Emotions engage the entire person, urging action and/or imposing action suspension and are consequently accompanied by preparatory tuning of the somatovisceral and motor systems. This means that emotions involve several components, subsystems of the organism that tend to cohere to a certain degree in emotion episodes, sometimes to the point of becoming highly synchronized (Scherer 2005a,b).

21. Emotions bestow control precedence (Frijda 2007) on those states of action readiness, in the sense of claiming (not always successfully) priority in the control of behaviour and experience.

Frijda & Scherer (2009) argue that it is these four central features that jointly define what is generally meant by emotion, both in lay and scientific terminology. These features also allow distinguishing emotions from other affective states such as preferences, moods, attitudes, interpersonal stances or affective dispositions or traits.

Based on what precedes, emotion will be considered here as a bounded episode in the life of a system that is characterized as an emergent pattern of component synchronization, preparing adaptive action tendencies to relevant events, as defined by their behavioural meaning and aiming at establishing control precedence over behaviour. In what follows, different theoretical models of emotion will be reviewed with respect to their use for a computational approach using the highlighted features.