6.1 INTRODUCTION

Education is a process which results in human enlightenment and empowerment for the achievement of a better and higher quality of life. An effective system of education leads to unleashing of learners’ potentialities, magnification of their competencies and transformation of their interests, attitudes and values. Therefore, education provides pathways to success and development (Samantaray, 2013). Education is important for both the individual and the society. It is perhaps the reason that every society endeavours to make necessary arrangements for ensuring best possible education of the next generation (Vashishtha, 2006).

Kalam (2004) addressed to the Indian Parliament that the India’s greatest resource is its people. In “India 2020; A Vision for New Millennium”, he mentions the people as the greatest resource for the transformation of India into a developed nation.

The reason is, only quality education make people useful, productive and prudent (Behara, 2009). The National Knowledge Commission (2006-09) believes that providing quality school education is a corner stone of development and minimum condition for any progress towards making India a knowledge society (Pitroda, 2009).

According to census data 2001, 8.55 crores of Indian total population is in between the age group of eighteen which is the age for Adolescents. The emerging and vigorous youths of the age group have the potentiality to contribute a lot towards national upliftment. The basic requirement for them is proper guidance and edification, which is only possible through education. Education and development of the country are interrelated and interdependent (Gartia, 2011).

Thus education empowers the individual with necessary skills and competence for achieving personal and social goals, which in turn contribute to the development of the nation Adolescent education, occupies crucial stage in the educational hierarchy as it prepares the students for higher education and for the world of work.
6.2 ADOLESCENCE

Adolescence is a transitional period of one’s life between childhood and adulthood during which significant biological, psychological and social changes take place in the life of a person. In this period, the equilibrium of physical, mental and social forces is often lost and the individual is left to make his own adjustments with self and the society at large. The exact age-span of adolescence may vary from person to person (Morgan & King et al., 1993:464); though generally it covers age from sixteen to nineteen years. These formative years are the most vulnerable as the body, mind and emotions undergo rapid change with little time to adapt. The word adolescence is derived from the Latin word ‘adolescere’ meaning to grow into maturity. Adolescent period is characterized by change in physiological, psychological and sociological aspects of individuals; Hall (1904) views adolescence as a period of stress and storm marked by vacillating and contradictory emotions. According to Gilmore et.al (1966), lack of experience, ego centrism and curiosity to experiment with new and sometimes risky social roles in order to establish unique identity, place adolescents in high risk for developing certain emotional & social problems.

According to Erikson, adolescence is characterized by identity crisis which if not properly resolved may lead to rebellion pattern. If emotions are not controlled; they may lead towards maladjustment. Irresponsibility, aggressive attitude, feeling of insecurity, excessive day dreaming, regression to earlier levels of behaviour, use of defence-mechanisms such as rationalization, projection, displacement area common danger signal of maladjustment (Hurlock, 1981:258).

Education serves as a significant role in the socioeconomic advancement of a society because it builds up a strong intellectual foundation in adolescents in terms of life skill and capacity for further learning. Adolescent students are usually at the level of senior secondary education which spreads over the ages of sixteen to eighteen. This stage of education serves to move on higher education as well as to provide generic competencies that cut across various domains of knowledge as well as skills.

In this research study, it has been considered as all those individuals who completed their matriculation examination and presently pursuing +1 and +2 level of education in the arts, science and commerce streams.
Modern education is centred on bread-earning issues and uses a scientific approach for the development of intellect and its practical applications to modern life. All these have created anxiety, frustration, stress, tension, maladjustment with so many personal and social problems and have disturbed the mental health of the individual to a great extent. Today depression, stress, anxiety and strain have become so much pervasive in every society that even the school children, adolescents, and college students not spared.

6.3 ACADEMIC STRESS AND ADOLESCENTS

Stress is defined as the adverse reaction of the people to excessive pressure or other types of demand placed on them (Jone Parry 2005). The word ‘Stress’ is derived from a Latin word ‘Stringi’, which means “to be drawn tight”. Frustration, conflicts and pressure are the three important sources of stress. It can be said that among the adolescents, academic achievement is a primary source of stress. Studies reveal that even low or moderate levels of stress can interfere with task performance.

Increasing amount of academic stress for prolonged period may create overwhelming frustration and anxiety in the Adolescent students which may in turn adversely affect their morale, academic achievement, mental health, study habits & adjustment styles.

The most extreme levels of stress can hinder efficacy of work and result in meager performance in academics and during such time it affects one’s complete happiness. Senior secondary school students who have experienced stressful life events also reported worse health outcomes and reduced quality of life most of the time. The Stressor is a factor or stimulator responsible for further burdening the intellectual or leading to physical pressure. These stressors could be subjected to categorization in context to intensity, regularity or duration of the stress (Hussien&Hussien, 2006).

This when combined with limited outlets for non-academic socialising, suggest that the stress in students would be higher. This also necessitates a study on the topic of Academic stress among adolescents in the Indian context.
6.4 EMOTIONAL INTELLIGENCE

Emotional intelligence (EI) is a relatively new field of study (Mayer, 2000). The concept of emotional intelligence was formally proposed by Yale psychologist Peter Salovey and John Mayer in 1990 in *Journal of Imagination and Personality*; it has received popular attention of psychologists and general public.

Emotional intelligence is the ability to sense, understand and effectively apply the power and acumen of emotions. Emotional intelligence is not a subject or an isolated skill that can be taught. It is the process of learning to understand our own emotions, learning to understand the emotions of others, gaining proficiency in positive emotional responses in oneself and recognizing and accepting the emotional responses of others.

Peter Salovey and John Mayer used the term EI to describe traits like appreciating one’s own emotions, empathy for the feeling of others and dealing with one’s emotions. They defined emotional intelligence as the “ability to monitor one’s own and other’s feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions.” Finally, it was Daniel Goleman, a Psychologist and science journalist who popularized the concept. He stated that *Emotional Intelligence is the ability to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification, to regulate one’s moods and keep distress from swamping the ability to think; to empathize and hope.*

The emotional Intelligence involves four things as mentioned herein under:

- Understand own emotions and how to manage them.
- Recognize emotion in others; respond empathetically to them read their social cues.
- Handle relationship with others well and
- Motivate yourself in an optimistic fashion go through the world (Peterson, 1997). The Latest Psychologists has developed comprehensive definitions on emotional intelligence as Mayer et al (1997) stated as “The capacity to reason about emotion and emotions to enhance thinking. It includes the ability to accurately perceive emotions, to
access and generate emotions so as to assist thought, to understand emotion & emotional knowledge; and to reflectively regulate emotions to promote emotional and Intellectual growth.”

Mangal (2004) states emotional intelligence in Indian context as it include, Intrapersonal awareness (knowing about own emotions), interpersonal awareness (knowing about other’s emotion) intrapersonal management (managing one’s own emotions) and interpersonal management (Managing these emotions)

From the above definitions Emotional Intelligence is concluded as the ability of the individual to know, manage own emotions, recognize them in both sides and to handle relationships.

**Emotional Intelligence can be defined as an array of non-cognitive capabilities, competencies and skills that influence one’s ability to succeed in coping with the environmental demands and pressures (Bar-On, 2000)**

High EI is thought to be a protective factor for mental and physical health (Parker et al., 2001). Impulsive aggression and violence are also thought to be consequences of faulty emotion regulation (Ekman and Frieson, 1969).

**6.5 SIGNIFICANCE OF THE STUDY**

Modern youth is tortured by various sorts of emotional problems leading either to emotional outbursts, social disharmony or emotional suppressions and psychosomatic problems. Numerous individuals felt that if the individuals have high intellectual level, they have the opportunity to attain success than low intellectual individual (Judy, 2004). Those high intellect individuals have strong and good Emotional Intelligence that influences the level of academic performance. This intelligence not only provides good achievement but also measures the good attitude of students. In the present times, academic stress is higher among students. Stress includes weekend exams, mid-term exams, assignments etc. that leads to frustration condition. This stress becomes higher with increasing awareness of education. Parents and teachers have also provided stress to individuals for their career
In the whole scheme of our education, there is no component which helps in training our emotional personality in order to handle the emotional problems, and, other problems like increased anxiety, depression, etc. among adolescents. Hence, a holistic education system to meet these challenges is the need of the hour. While science also is progressing towards consciousness-based paradigm (downward causation) featured by consciousness as the original state and matter as the end product of condensed consciousness, education system also should incorporate this holistic base.

In this backdrop and context, we need to understand Yoga as a science of holistic living, which brings out total personality development of adolescents at physical, mental, emotional and intellectual levels with a spiritual basis. Further, this study will create significant health awareness among adolescent students and will help to understand the quality of life which needs more thrust on preventive and primitive approach apart from curative. The preventive and primitive down airs of health are largely controlled by yoga practices. Further, this study may highlight the yoga practices’ importance and their benefits in controlling academic stress among adolescents.

Yoga is a commonly practised mind-body approach that has components centering on postures, breathing and meditation (Brena SH. 1975)

Traditionally, yoga is a method of joining the individual self with the divine, universal spirit or cosmic consciousness.

In general, yoga includes the following:

- Physical postures or asanas (the relative arrangement of different parts of the body for a specific purpose.), which tone the body, direct the awareness inwards and coordinate movements of the body with the breathing system.

- Pranayama or Breathing work, which can include ways or breathing calmly and letting go of tension; deep relaxation techniques are aimed to let go of tension in both body and mind.

- Meditation or preparation techniques designed to increase inner awareness and concentration.
Chapter 6

Summary

The ultimate aim of yoga is to control over one’s emotions and thought process thereby giving the ability to face situation of pleasure and pain with equanimity. Regular practice of yoga promotes strength, endurance, flexibility and facilities in human being such as compassion, and greater self-control, while cultivating a sense of calmness and well-practice of yoga help achieve the balance between the mind and body.

Yoga, Meditation and relaxation significantly lowers all the psychological problems. Yoga brings control over breathing and that works in effectively increasing the psycho-motor coordination. Practice of yoga is a conscious process of gaining control over the mind, and thus the concentration and attention-spam improve, and hence intelligence of the children found in this study increased. In this manner, various researches show that the practice of yoga can be successfully administered to improve the general intelligence and well being of the adolescents.

6.6 RATIONALE OF THE STUDY

Adolescents spend a sizable portion of their time in school and it influences their total personality affecting the values they ascribe to themselves, their relation to others, and their potential for work, productivity and ability for adoption.

A lot of physical and emotional changes and intellectual development along with emotional turbulence occur during these periods, which are very significant in the shaping of a person. In this period, the equilibrium of physical, mental and social forces is often lost and the individual is left to make his own adjustments with self and the society at large. A significant cause of the adolescent problems is the inability to tackle academic stress and the emotional instability often associated with this period.

Adolescents show signs of emotional disabilities, aggressive behaviour, shyness, social phobia and often lack of interest in academic performance. A lot of these erratic mannerisms are manifestations of lack of emotional intelligence which refers to the ability to understand emotions and their causes and the capability of effectively regulating these emotions as well as utilize them in problem solving.
and conflict resolution. The emotional intelligence is relatively new field of psychology yet it is very helpful in understanding the hidden emotions of a person. It has been inferred from some studies that emotional intelligence can be enhanced by training program.

Yoga offers a way out of this 'whirlpool of stress' as well as emotional disturbances. It offers a holistic solution to all the problems of adolescence, which threatens the very future of young generation. Practice of yoga enhances our control over our intellect, emotion and behaviour is possible. Yoga through its techniques of meditation, asanas, and pranayama yields a positive effect in the management of academic stress in adolescents.

According to the American Yoga Association (AYA), yoga exercises put pressure on the body’s glandular systems, thus increasing its efficiency and total health. Many studies reveal that the students who experienced yoga module performed better in overall academics as well as in their separate subjects than those students who did not experience yoga module. Meditation, practiced over long periods, produces definite changes in perception, attention, and cognition. Research studies showed that yoga techniques are helpful in management of anxiety and improvement in concentration. As such there is an urgent need to tap this ocean of age-old knowledge of yoga to help us in the direction of proper channeling of emotions and tackling stress.

The **present study** assumes greater significance for the state of Delhi. In Delhi, the Academic stress levels among Adolescent students is generally higher than average.

The **need of the study** is further affirmed by the fact that no such planned and thorough study has been conducted in this field. Hence to study the effect of yogic practice on emotional intelligence and academic stress of adolescents in the modern urban schools of Delhi region, which are attended by students from different ethnic, social and economic backgrounds, is extremely important.
STATEMENT OF THE PROBLEM:

EFFECT OF YOGIC PRACTICE ON EMOTIONAL INTELLIGENCE AND ACADEMIC STRESS OF ADOLESCENT STUDENTS.

6.7 OPERATIONAL DEFINITIONS OF THE TERM USED:

Yoga Practices:

Yoga is a way of life which leads towards harmony within one selves and the wider world. It broadens one’s sense of the awareness and deepens the depths of consciousness that one can attain (Jain, 2006).

According to Patanjali, yogic practices are classified as-

(i) **Yama**- A practice for improvement in our social behaviour

(ii) **Niyama**- A practice for improvement in our personal behaviour

(iii) Asanas (Physical Postures)

(iv) Pranayama

(v) Pratyahara

(vi) Dharna

(vii) Dhyana (Meditation) and

(viii) Samadhi or attainment of super consciousness.

In the Present study, Yogic practices comprises of the following:

1. Prayer

2. Yogic Sukhma Kriya

3. Asanas- The asana represent stretching and moving body into various positions and holding the positions comfortably. The perfect asana is one in which the spine and the head are erect, there is no movement of the body and the mind falls into the state of equilibrium.

4. **Pranayama**-

   Pranayama is also lengthening (ayama) of prana, life breath. The control of breath by inhaling (purak), keeping it in the lungs for some times (kumbhak) and exhaling out (rechak) are the three processes of pranayama.
5. **Meditation or Dhyana**

In dhyana, one sits immobile, quietly breathing, retracting the senses and concentrating the mind on a single point, the attention is bound to become steady without the slightest distraction.

6. **Laughter or Hansi ki Kriya**

7. **Prayer.**

8. **Discussion**

**Emotional Intelligence:**

Emotional intelligence refers to the mental processes involved in the recognition, use, understanding and management of one’s and other emotional state to solve problems and regulate behaviour. It is the ability to monitor one’s own and other emotions, to discriminate among them and to use the information to guide one’s thinking and action (Mayer and Salovey 1997). But in the present study, it will be known as Intrapersonal awareness (Knowing one’s emotion), Interpersonal awareness, (Knowing other’s emotions) Intrapersonal management (Management of own emotions) and interpersonal management (Management of other’s emotions) respectively.

**Academic stress:**

Academic stress may be considered as worry over future, making choices about career, about to learn and need to do well. It is an internal state of mind, which can be caused by physical demands or by environmental and social situations, which are evaluated at potentially harmful, uncontrollable or exceeding ones resources for coping (Lazarus and Folkman, 1984). But in context to the present study, academic stress will be represented as academic frustration, academic conflict, academic pressure and academic anxiety of adolescent students.

**Adolescent students:**

Adolescent students are usually at the level of senior secondary education which spreads over the ages of sixteen to eighteen. But in this research study, adolescent
students are considered as all those individuals who completed their matriculation examination and presently pursuing +1 and +2 level of education in the arts, science and commerce streams.

**6.8 OBJECTIVES OF THE STUDY:**

1. To study the effect of yogic practice on emotional intelligence of adolescent boy students and girl students.

2. To study the effect of yogic practice on academic stress of adolescent boy students and girl students.

3. To design yogic practice for the development of emotional intelligence of adolescent boy students and girl students.

4. To design yogic practice for the reduction of academic stress of adolescent boy students and girl students.

5. To implement the yogic practice for the development of emotional intelligence of adolescent boy students and girl students.

6. To implement the yogic practice for the reduction of academic stress of adolescent boy students and girl students.

7. To evaluate the efficacy of the yogic practice in the development of emotional intelligence of adolescent boy students and girl students.

8. To evaluate the efficacy for the yogic practice in the reduction of academic stress of adolescent boy students and girl students.

**6.9 HYPOTHESES OF THE STUDY:**

H1: There will be no significant difference between adolescent boys and girls based on the areas of Emotional Intelligence namely: (a) Intrapersonal Awareness, (b) Interpersonal Awareness, (c) Intrapersonal Management and (d) Interpersonal Management

H1 (a): There will be no significant difference between adolescent boys and girls based on the components of Academic Stress namely: (a) Academic Frustration, (b) Academic Conflict, (c) Academic Pressure and (d) Academic Anxiety
H2: There will be no significant relationship between the areas of Emotional Intelligence namely: (a) Intrapersonal Awareness, (b) Interpersonal Awareness, (c) Intrapersonal Management, and (d) Interpersonal Management among adolescent students

H2 (a): There will be no significant relationship between the components of Academic Stress namely: (a) Academic Frustration, (b) Academic Conflict, (c) Academic Pressure, and (d) Academic Anxiety among adolescent students

H3: There will be no significant difference between Experimental and Control group of adolescent students on the factors of ‘Emotional Intelligence’, before yoga practices

H4: There will be no significant difference between Experimental and Control group of adolescent students on the factors of ‘Academic Stress’, before yoga practices

H5: There will be no significant difference between boys and girls within Experimental group on the areas of ‘Emotional Intelligence’ namely: (a) Intrapersonal Awareness (b) Interpersonal Awareness (c) Intrapersonal Management and (d) Interpersonal Management before yoga practices

H5 (a): There will be no significant difference between boys and girls within Control group on the areas of ‘Emotional Intelligence’ namely: (a) Intrapersonal Awareness (b) Interpersonal Awareness (c) Intrapersonal Management and (d) Interpersonal Management before yoga practices

H6: There will be no significant difference between boys and girls within Experimental group on the components of ‘Academic Stress’ namely: (a) Academic Frustration (b) Academic Conflict (c) Academic Pressure and (d) Academic Anxiety before yoga practices

H6 (a): There will be no significant difference between boys and girls within Control group on the components of ‘Academic Stress’ namely: (a) Academic Frustration (b) Academic Conflict (c) Academic Pressure and (d) Academic Anxiety before yoga practices

H7: There will be no significant difference between Experimental and Control group of boys on the areas of ‘Emotional Intelligence’, before yoga practices
H7 (a): There will be no significant difference between Experimental and Control group of girls on the areas of ‘Emotional Intelligence’, before yoga practices

H8: There will be no significant difference between Experimental and Control group of boys on the components of ‘Academic Stress’, before yoga practices

H8 (a): There will be no significant difference between Experimental and Control group of girls on the components of ‘Academic Stress’, before yoga practices

H9: There will be no significant difference between Experimental and Control group of adolescent students on the areas of ‘Emotional Intelligence’, after yoga practices

H10: There will be no significant difference between Experimental and Control group of adolescent students on the areas of ‘Academic Stress’, after yoga practices

H11: There will be no significant difference between the Experimental and Control group of boys on the areas of ‘Emotional Intelligence’ namely: (a) Intrapersonal Awareness (b) Interpersonal Awareness (c) Intrapersonal Management and (d) Interpersonal Management, after yoga practices

H11 (a): There will be no significant difference between the Experimental and Control group of girls on the areas of ‘Emotional Intelligence’ namely: (a) Intrapersonal Awareness (b) Interpersonal Awareness (c) Intrapersonal Management and (d) Interpersonal Management, after yoga practices

H12: There will be no significant difference between the Experimental and Control group of boys on the components of ‘Academic Stress’ namely: (a) Academic Frustration (b) Academic Conflict (c) Academic Pressure and (d) Academic Anxiety, after yoga practices

H12 (a): There will be no significant difference between the Experimental and Control group of girls on the components of ‘Academic Stress’ namely: (a) Academic Frustration (b) Academic Conflict (c) Academic Pressure and (d) Academic Anxiety, after yoga practices

H13: There will be no significant difference between Experimental (Pre & Post) and Control (Pre & Post) group on the areas of ‘Emotional Intelligence’
H14: There will be no significant difference between Experimental (Pre & Post) and Control (Pre & Post) group on the components of ‘Academic Stress’

H15: There will be no significant difference between Experimental (Pre & Post) and Control (Pre & Post) group of boys on the areas of ‘Emotional Intelligence’

H16: There will be no significant difference between Experimental (Pre & Post) and Control (Pre & Post) group of boys on the components of ‘Academic Stress’

H17: There will be no significant difference between Experimental (Pre & Post) and Control (Pre & Post) group of girls on the areas of ‘Emotional Intelligence’

H18: There will be no significant difference between Experimental (Pre & Post) and Control (Pre & Post) group of girls on the components of ‘Academic Stress’

6.10 DELIMITATION OF THE STUDY

1. The subjects of this study were confined to 160 adolescent students from Evergreen Public School, Vasundhara Enclave, and New Delhi during the academic year 2012-2013.

2. The age of the subjects ranges between 16-18 years.

3. The selected subjects were randomly assigned into two groups- Experimental and Control Groups

4. The duration of the training period was restricted to six weeks and the number of sessions per week was confined to six days only.

5. In the present study the yogic practices were delimited to prayer, a set of selected yogiksookshmakriya, asana, meditation, laughter or hansikikriya, prayer, and discussion.

6. The study was restricted to the following dependent and independent variables:-

i) Dependent variables- Emotional Intelligence and Academic Stress
ii). Independent variables – Yoga practice for eight weeks

7) Economic and parental background of students were not considered

8) The study was limited to test the effectiveness of yoga in improving the Emotional Intelligence and Academic Stress only.

6.11 METHODOLOGY

The study used both adolescent boys and girls studying at Evergreen Public School, Vasundhara Enclave, New Delhi the students’ age group was between 16 to 18 years. Purposive sampling technique was used for selecting school. The study adopted the experimental method in order to neutralize the independent and dependent variables. Present study was intended to examine yoga module suitable for improvement of Emotional intelligence and reduction in Academic stress of Adolescent students. The experimental design for the present study had been conducted in pre test and post test, and experimental - control design group. The design had been carried out in the stages of pre-testing, and post testing yoga practices. The students were administered (a) Mangal’s Emotional Intelligence Inventory (2004) and (b) Bisht Battery of Stress Scale

6.12 RESEARCH DESIGN

In any research, the research design is considered as the conceptual structure and it reflects the blueprint of the collection, analysis and measurement of data (Kothari, 2004). The research design has been described as a structure, plan and strategy of the research to find out alternative tools to solve the issues and to reduce the variances.

The present study adopted experimental research design method to neutralize the variables and also identify the effectiveness of yoga practices among adolescent students. Initially, 160 secondary school students were randomly selected and based on their scores on the Emotional Intelligence and Academic Stress, they were subjected to two groups, one is experimental and the other is control group. In the experimental group of adolescents were exposed to Yoga Practices while the control group adolescents were not exposed to Yoga Practices.

Pre-test (Experimental group) designs are widely used in behavioural research, primarily for the purpose of comparing (Control) groups and/or measuring change
resulting from experimental treatments. This design is considered as an experimental design (Dimitrov & Rumrill, 2003). The advantages of design being the random selection of participants to be in one group or the other and the longitudinal nature of the study, which means participants are followed forward in time to determine if a specific outcome occurred. Further, the randomization is needed to ensure that the experimental and control are as similar as possible except for exposure to the intervention or treatment. Further, yoga practices are taken as intervening variable, Emotional Intelligence and yoga practices is independent variable in the present study and the Academic stress is considered as dependent variable.

The design would have the three operational stages:

Phase 1 - Pre-test
Phase 2 - Experimental stage
Phase 3 - Post test

FIGURE
In this diagram

\[ X_1 = \text{Experimental group} \]

\[ X_2 = \text{Control group.} \]

\[ G_1 = \text{Indicates experimental group who will practice yoga programme.} \]

\[ G_2 = \text{Control Group who will not practice yoga programme.} \]

\[ R = \text{Indicated that subjects of the group are randomly selected or assign to each group} \]

6.13 SAMPLING

In this study, the researcher adopted purposive sampling technique method for the selection of participants. In selecting a sample process for information, the question the researcher is looking forward to answer is of high significance. The question thus determines the purpose on which the procedure would be based (Tongco, 2007). Experimental and Control group in this study were selected based on the score obtained by the students on components of (a) Emotional Intelligence and (b) Academic Stress.

The participants of both boys and girls adolescents were selected from Senior Secondary School Students, who studying at Evergreen Public school, Vasundhara, Delhi. Out of 160 students, 112 students divided into two groups 56 students in experimental group and 56 students in the control group, based on the scores obtained in the Emotional Intelligence and Academics stress. The experimental group is further divided into Boys (n=30) and girls adolescents (n=26)). In the same manner control group is also further divided into boys adolescents (n=32) girls adolescent students (n=24).

6.14 TOOLS TO BE USED

There are two types of tools are used for the present study are (i) Emotional Intelligence Inventory and (ii) Academic Stress Scale and these tools were used before and after implementing yoga Practice. Before implementing the yoga practices, the entire sample of 160 adolescents students were administered these Identification
Tools:

2. Bisht Battery of Stress Scale (2005)

6.15 PROCEDURE OF DATA COLLECTION

Permission to carry out the present research proposal was obtained from the school authority. The investigator contacted the in-charge of the school and obtained permission for the study. After obtaining the requisite permission, the investigator visited the school two days before the task of data collection. During this visit, the student’s participants were provided a detailed description of the study and of yoga practice. Requirements of the study were clearly stated, methods of data collection were described, and any questions posed by the participants were well answered. The participants were also briefed about the preparations to be made by them before they came for the yoga. They were particularly asked to wear suitable clothes and eat light and meagre food before coming for yoga practice. Participation in the experimental study was not voluntary; it was based on the scores obtained in the tools administered.

On the first day, the investigator reached the school a little before the scheduled time and explained the procedure to fill the questionnaires to the participants. During the administration of these tests the investigator explained the difficult words/ difficulties and encouraged the students to convey their feelings at that time. The participants were discouraged to give a generalized answer.

From the next day onwards, the investigator applied yoga practices on the 56 students of the experimental group. No yogic practice was applied to the control group. The yoga practices were selected in consultation with the yoga experts of Bhartiya Yoga Sansthan, Delhi. Yoga experts from this Sansthan administered the selected yoga practices to the experimental group.

On the completion of the yoga intervention programme the investigator carried out the post test for academic stress and emotional intelligence on the control and experimental group. Thereafter the investigator collected the filled in questionnaire and thanked the school authorities and participants for their kind cooperation.
6.16 SCORING PROCEDURE

*Scoring Procedure for Emotional Intelligence Inventory*

The scoring procedure of this inventory has been done with the help of stencil. The mode of response to each of the item of the inventory is in the form of a forced choice i.e. either yes or no, indicating complete agreement or disagreement with the proposed statement respectively. In the present emotional intelligence inventory the items having the response ‘yes’ and ‘no’ are for the lack of emotional intelligence. Similarly, there are an items having ‘no’ response provides clue for the presence of emotional intelligence and ‘yes’ for its absence. For scoring one mark is to be provided for the response indicating presence of emotional intelligence and zero for the absence of emotional intelligence.

*Scoring Procedure of Academic Stress Inventory*

The scoring method is as follows: 4 mark for ‘Always’, 3 mark for ‘Often’, 2 mark for ‘Sometimes’, 1 mark for ‘Rarely’ and 0 mark for ‘Never’. The total scores in each of the component describe three levels of stress namely: High stress, Average stress and Low stress.

<table>
<thead>
<tr>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
<th>Total</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too much</td>
<td>Much</td>
<td>Average</td>
<td>Less</td>
<td>Not at all</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.17 MAIN STUDY: PARTICIPANTS (EXPERIMENTAL & CONTROL GROUP)

In this study, participants of both boys and girls adolescent students belonging to Evergreen Public School, Vasundharaat New Delhi. Their age ranges between 16-18 years. The total sample consists of 112 students divided into two groups 56 students in experimental group and 56 students in the control group. Each group having both boys and girls.
The yoga practice classes focused on yoga with pranayama (breathing techniques), asanas (postures) and Dhyana and discussion session, all of which are consistent with the way that yoga is defined for the purposes of this study. The control group participants were not exposed to yoga practice. During the course of the study, both groups were not asked to participate in any other yoga classes during the intervention. The participants were not excluded on the basis of current psychological state, activity levels, religious beliefs, body composition, ethnicity or gender, but some of this information was recorded for data analyses. The above data was gathered by using demographic details in the inventory and scales.
6.18 DESIGN OF YOGA PRACTICES

The Intervention technique namely yoga practices have implemented in the present study. In this technique mainly emphasis on Asanas, Pranayama and Dhyana The intervention of yoga practices was given to the experimental group for 60 min. per day. Likewise, the experimental group received 8 weeks of the practices (2 months). The details of the yoga practices as follows:

Table 6.1 Details of the Yoga Practices

<table>
<thead>
<tr>
<th>S. N</th>
<th>Description of Activity/exercise</th>
<th>Time taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Roll call and prayer</td>
<td>4 min.</td>
</tr>
<tr>
<td>2</td>
<td>Warm-up exercise</td>
<td>3 min.</td>
</tr>
<tr>
<td>3</td>
<td>ASANA</td>
<td></td>
</tr>
<tr>
<td>(i)</td>
<td>Sukhasana</td>
<td>2 min</td>
</tr>
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<td>(ii)</td>
<td>Padmasana</td>
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<td>(iii)</td>
<td>Yogmudra</td>
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<td>(iv)</td>
<td>Vajrasana</td>
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<td>Ushtrasana</td>
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<td>Tadasan</td>
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<td>Ardhachandrasana</td>
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<td>Trikonasana</td>
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<td>Bhajangasana</td>
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<td>Simhasana</td>
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<td>Shavasana</td>
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<td>4</td>
<td>Hansikikriya</td>
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<td>5</td>
<td>PRANAYAM</td>
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<td>(i)</td>
<td>Anulom-vilom</td>
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<tr>
<td>(ii)</td>
<td>Kapalbhati</td>
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<td>(iii)</td>
<td>Bhranri</td>
<td>3 min</td>
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<tr>
<td>6</td>
<td>Meditation</td>
<td>5 min</td>
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<tr>
<td>7</td>
<td>Prayer</td>
<td>1 min</td>
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<td>8</td>
<td>Discussion</td>
<td>4 min</td>
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<td></td>
<td>Total</td>
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6.19 PROCEDURE FOR DATA COLLECTION

The most important data collecting approach implemented in the research process is the pre and post effect design where the effect of yoga practices is evaluated using structured questionnaire method in order to support and confirm the quantitative findings. SPSS version20.0 was implemented for the data analysis process so that the quantitative data are analyzed and presented and also executes both descriptive and inferential statistics. Also, percentage analysis was employed in the research process for analyzing data and examine the hypotheses.

6.20 STATISTICAL TECHNIQUES USED

Statistics is a mathematical technique or process of gathering, describing, organizing, analyzing and interpreting numerical data. The statistical techniques are used to give meaningful and considerable picture of whole data so that it could be easily comprehended. It was employed to test the hypotheses of the study. For the present study, the following statistical techniques were used for the analysis and interpretation of data: such as Mean, SD and CR value have been employed for finding the significance of difference among mean scores. Reliability analysis and Correlation analysis was conducted for whether there is any linear relationship among the components of Emotional Intelligence and Academic Stress. Independent sample”t“ test has been applied to testing the proposed hypotheses mentioned in this study yet the final selection of the statistical technique depend upon the nature of data.

6.21 MAIN FINDINGS

It is concluded from the study that there was no difference between the Experimental and Control group of adolescent students (Boys and Girls) in relation to Emotional Intelligence and Academic Stress scale before the intervention of yoga practices. At the same time, after the intervention of yoga practices, a significant difference was noticed between the Experimental and Control group of student’s scores in the factors of Emotional Intelligence and Academic Stress.

a) Descriptive findings

The first phase of the research study sample of 160 students (90 boys and 70 girls) was administrated Mangal Emotional Intelligence Inventory and academic stress scale. On the
basis of mean score and S.D. those who gets low scores in E.I. and high scores in A.S. were subjected to the participants of experimental and control group in the study. On the base line data for boys and girls there was significant difference between boys and girls on academic stress and emotional intelligence and their factors. The boys have scored higher mean values on all the factors of emotional intelligence where as the factors of academic stress the girls have scored higher mean value then boys.

b) The correlation findings
In the correlation analysis finding were indicated that there was significant and positive correlation among all four factors of emotional intelligence as well as the factors of academic stress.

Descriptive statistics
- Findings on base line descriptive statistics for the component of emotional intelligence score of boys and girls.

The boys and girls were significantly influenced by emotional intelligence boys students are higher and emotional intelligence then girl adolescents.

- Finding on baseline descriptive statistics for the components of academic stress score of boys and girls

The finding of the study showed that the score of boys was higher in frustration and pressure while among girls academic frustration followed by pressure but over all scores emphasized that academic stress affect the boys and girls but girls were more affected by academic stress in compression of boys.

- Finding on the relationship between adolescent boys and girls based on the components of emotional intelligent i.e. a) interpersonal awareness b) interpersonal management c) intrapersonal awareness d) intrapersonal management.

There was significant difference between adolescent boys and girls based on the components of emotional intelligent i.e. a) interpersonal awareness b) interpersonal management c) intrapersonal awareness d) intrapersonal management.
Chapter 6

Summary

• Finding on the relationship between adolescent boys and girls based on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict.

• There was significant difference between adolescent boys and girls based on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict.

Correlation findings

• Finding on the relationship between the components of emotional intelligence.

Emotional intelligent was found to have significant positive relationship between the components of emotional intelligence.

• Finding on the relationship between academic stress and components of academic stress.

Academic stress was found to have significant positive relationship between the components of emotional intelligence.

SECTION-II

In the phase II those students who scored lower in emotional intelligence and higher in academic stress were considered for experimental study.

A sample size of 112 students out of the 160 students selected they call under the experimental and control group in each group i.e. experimental and control group there were 56 students each in experimental and control group.

• Findings on the relationship between experimental and control group of adolescent student on the component of emotional intelligent before yoga practices.

There was no significant difference on the factors of emotional intelligent between experimental and control group. Null hypothesis is accepted.
Chapter 6

Summary

- Finding on the relationship between experimental and control group of adolescent student on the components of academic stress before yoga practices.

There was no significant on the components of academic stress between experimental and control group. Null hypothesis is accepted.

- Finding on the relationship between boys and girls within experimental group on the components of emotional intelligence i.e. a) interpersonal awareness b) interpersonal management c) intrapersonal awareness d) intrapersonal management. (Before yoga practice).

There was no significant difference on the components of emotional intelligence i.e. a) interpersonal awareness b) interpersonal management c) intrapersonal awareness d) intrapersonal management. (Before yoga practice). Null hypothesis is accepted.

- Finding on the relationship between boys and girls within experimental group on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice).

There was no significant difference between boys and girls within experimental group on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice). Null hypothesis is accepted.

- Finding on the relationship between boys and girls within experimental group on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice).

There was no significant difference between boys and girls within experimental group on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice). Null hypothesis is accepted.
Chapter 6

Summary

- Finding on the relationship between boys and girls within control group on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice).

There was no significant difference between boys and girls within control group on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice). Null hypothesis is accepted.

- Finding on the relationship between boys of experimental and control group on the components of emotional intelligence i.e. a) interpersonal awareness b) interpersonal management c) intrapersonal awareness d) intrapersonal management. (Before yoga practice).

There was no significant difference between boys of control group on the components of emotional intelligence i.e. a) interpersonal awareness b) interpersonal management c) intrapersonal awareness d) intrapersonal management. (Before yoga practice). Null hypothesis is accepted.

- Finding on the relationship between girls of experimental and control group of girls on the components of emotional intelligence i.e. a) interpersonal awareness b) interpersonal management c) intrapersonal awareness d) intrapersonal management. (Before yoga practice).

There was no significant difference between girls of experimental and control group of girls on the components of emotional intelligence i.e. a) interpersonal awareness b) interpersonal management c) intrapersonal awareness d) intrapersonal management. (Before yoga practice). Null hypothesis is accepted.

- Finding on the relationship between boys of experimental and control group on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice).

There was no significant difference between boys of experimental and control group on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice). Null hypothesis is accepted.
c) academic pressure d) academic conflict. (Before yoga practice). Null hypothesis is accepted.

- **Finding the relationship between boys on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice).**

There was no significant difference between boys on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice). Null hypothesis is accepted.

- **Findings on the relationship between experimental and control group of adolescent student on the components of emotional intelligence (after yoga practice).**

There was significant difference between experimental and control group of adolescent student on the components of emotional intelligence (after yoga practices). Null hypothesis is rejected alternative hypothesis is accepted stating that there was a significant difference between experimental and control group of students.

- **Findings on the relationship between experimental and control group of adolescent student on the components of academic stress (after yoga practice).**

There was significant difference between experimental and control group of adolescent student on the components of academic stress (after yoga practices). Null hypothesis is rejected alternative hypothesis is accepted stating that there was a significant difference between experimental and control group of students.

- **Findings on the relationship between experimental and control group of boys on the components of emotional intelligence (after yoga practice).**

There was significant difference between experimental and control group of boys on the components of emotional intelligence (after yoga practices). Null hypothesis is rejected alternative hypothesis is accepted stating that there was a significant difference between experimental and control group of students. Null hypothesis is
rejected alternative hypothesis is accepted stating that there was a significant
difference between experimental and control group of boys on the components of
emotional intelligence. (After yoga practices).

- Finding of relationship between experimental and control group of girls on
  the components of emotional intelligence (after yoga practice).

There was significant difference between experimental and control group of girls on
the components of emotional intelligence (after yoga practices). Null hypothesis is
rejected alternative hypothesis is accepted stating that there was a significant
difference between experimental and control group of girls on the components of
emotional intelligence. (After yoga practices).

- Finding of relationship between experimental and control group of boys on
  the components of academic stress (after yoga practice).

There was significant difference between experimental and control group of boys on
the components of academic stress (after yoga practices). Null hypothesis is rejected
alternative hypothesis is accepted stating that there was a significant difference
between experimental and control group of boys on the components of academic
stress. (After yoga practices).

- Finding of relationship between experimental and control group of boys on
  the components of academic stress (after yoga practice).

There was significant difference between experimental and control group of boys on
the components of academic stress (after yoga practices). Null hypothesis is rejected
alternative hypothesis is accepted stating that there was a significant difference
between experimental and control group of boys on the components of academic
stress. (After yoga practices).

- Finding of relationship between experimental and control group of girls on
  the components of academic stress (after yoga practice).

There was significant difference between experimental and control group of girls on
the components of academic stress (after yoga practices). Null hypothesis is rejected
alternative hypothesis is accepted stating that there was a significant difference between experimental and control group of girls on the components of academic stress. (After yoga practices).

SECTION III

In this phase the pre and post effect of yoga practices in experimental group as well as control group was based on gender were evaluated.

- **Finding the relationship between experimental (pre and post) and control (pre and post) group on the components of emotional intelligence i.e. a) interpersonal awareness b) interpersonal management c) intrapersonal awareness d) intrapersonal management.**

From the analysis it was evident that there was significant difference between the pre and post effect of yoga practices in experimental group while considering components of emotional intelligence and there is no significant difference between pre and post effect of yoga practices in control group.

- **Finding the relationship between experimental (pre and post) and control (pre and post) group on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice).**

From the analysis it was evident that there was significant difference between the pre and post effect of yoga practices in experimental group while considering components of academic stress and there is no significant difference between pre and post effect of yoga practices in control group.

- **Finding the relationship among experimental (pre and post) and control (pre and post) group of boys on the components of emotional intelligence i.e. a) interpersonal awareness b) interpersonal management c) intrapersonal awareness d) intrapersonal management.**

From the analysis it was evident that there was significant difference between the pre and post effect of yoga practices in experimental group of boys but there was no
significant difference between pre and post effect of yoga practices in control group while considering the components of emotional intelligence.

- **Finding the relationship among experimental (pre and post) and control (pre and post) group of boys on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice).**

From the analysis it was evident that there was significant difference between the pre and post effect of yoga practices in experimental group of boys but there was no significant difference between pre and post effect of yoga practices in control group while considering the components of academic stress.

- **Finding the relationship among experimental (pre and post) and control (pre and post) group of girls on the components of emotional intelligence**

From the analysis it was evident that there was significant difference between the pre and post effect of yoga practices in experimental group of girls but there was no significant difference between pre and post effect of yoga practices in control group while considering the components of emotional intelligence.

- **Finding the relationship among experimental (pre and post) and control (pre and post) group of girls on the components of academic stress i.e. a) academic anxiety b) academic frustration c) academic pressure d) academic conflict. (Before yoga practice).**

From the analysis it was evident that there was significant difference between the pre and post effect of yoga practices in experimental group of girls but there was no significant difference between pre and post effect of yoga practices in control group while considering the components of academic stress.

**6.22 EDUCATIONAL IMPLICATION**

The results drawn out from the present study is of great importance for teachers, educationists, school administrators, educational planners and counsellors.
1. The adolescent students have followed yoga practices to improve emotional intelligence and reduce academic stress. An experimental study of this kind develops the interest of the educationists and researchers to implement it in the education policy.

2. Excessive academic stress may lead to a burnout, which is characterized by emotional exhaustion, feeling of low accomplishment and depersonalization of students, which can affect both health and academic performance. Severe academic stress faced for a prolonged period may create overwhelming frustration and anxiety in the students that may in turn adversely affect their morale academic achievement, mental health, study habits and adjustment style. In such a scenario yoga practices guides teachers and learners both, for the solution of the problems regarding academic stress.

3. Adolescent stage is often referred to as the ‘stage of storm and stress’ (Hall, 1904). In this period of adolescents, the balance of mental, physical and social strength is often lost. Emotional expressions fluctuate frequently and quickly and it is very difficult to put a check on the emotion during the peak of adolescence. In this stage of life, yoga plays a vital role and helps in balancing the life of adolescent students. In the present study, yoga practices were positively significant with emotional intelligence of adolescence students. Therefore it is deduced that through yoga practices, the emotional intelligence would improve and control mind fluctuations.

4. The researcher’s in depth study of the efficacy of yoga practices on emotional intelligence and academic stress conveys valuable suggestions to education counselors, administrators and teachers regarding inclusion of yoga as a subject in their daily curriculum. This step will take care of many problems related to physical and psychological aspects of all students. The NCF, 2005 had also recommended inclusion of yoga and physical activities in the curriculum of the school.
5. The present study also brings forth the facet of yoga being curative in the psychological problems of the adolescent students. It is known that yoga is the science of body and mind. It emanates from the study that yogic intervention also puts a check on the suicidal tendencies, drug abuse, etc by improving their psychological health. This also buttresses the case that the education counselors and administrators should strive to include yogic practices in the educational set-up for the adolescent students.

6. The study also has suggestions for the framers of the curriculum for the adolescent students that they recognize the efficacy of yoga practices. The present study had established the reduction of academic stress and the improvement of emotional intelligence in the adolescent students. Therefore the constructors of the curriculum need to recognize this outcome and act appropriately for inclusion of the yogic practices in the curriculum.

7. The adolescent students are the inadvertent victims of high stress, anxiety, frustration, aggression, jealousy, egoism etc, which inhibit them from attaining success in academic and personal front. The study analyses and records this state of affairs and suggests a possible way out through the age old yogic practices. This solution could be widely recommended by the teachers and parents alike to encourage the adolescent students to participate in yoga intervention programmes.

8. Yoga improves the memory and concentration of the child besides ensuring their robust health thus making them active participants in the growth of the nation. Thus the understanding and assimilation of yogic practices in regular school curriculum is valuable for the adolescent students. The investigator realizes that the present study adds additional knowledge in this field of effectiveness of yoga intervention programme, and suggests incorporation of yogic practices in the school activities for the benefit of the society.
6.22 SUGGESTIONS FOR FURTHER STUDY

- Same research can be conducted in other locality, states.
- The present study can also be conducted in relation to spiritual intelligence, personality, moral intelligence, problem solving abilities, self-concept and resilience.
- Studies can also be conducted on secondary level or college level students.
- The study was examined with limited number of samples where only 112 adolescent students were selected which is a key limitation of the present study. Thus the future study can be conducted with larger sample size.
- In the present study only quantitative methodology was adopted. However the direct interview method could provide exact view and impact of yoga directly; therefore, the future studies may adopt qualitative methodology, i.e., mixed methodology.
- Even though the adopted cross sectional research design was identified to be quicker and reliable in this study, the longitudinal research design has also been identified as showing very promising results in the cause and effect of yoga efficiency. Hence the future studies may adopt the longitudinal research design.
- The present study utilized a certain selected sets of yogasanas, pranayama and meditation only for testing its objectives. The future studies may be conducted by adopting other yogic practices.
- The present study was conducted over a period of eight weeks only. The future studies may be conducted for longer durations.
- A study with different academic streams of academics, i.e., art, science, commerce, would throw more light on the findings of this study.
Yoga is generally perceived as a means of improving the health and fitness. However there are aspects of yoga which go beyond the mere improvement in the physical wellbeing of the individual. The researcher has undertaken this study to locate and examine the relation of the psycho-physiological nature of yoga with the academic output of the adolescent students. This is a challenging concept of yoga philosophy, and, this study will contribute towards marking this concept among the academic fraternity as a potentially significant one and assembling of resource material for future researchers.