INTRODUCTION

Industrial revolution in 1920 caused fast development in all sectors. Its effect was seen in the sports field also. Due to modernization in sports performance of all players improved tremendously. Sequentially physical fitness developed. This led to development of infrastructure like surface, equipment. However performance of various players did not improve. Research led to understand the underlying psychological reasons for the same.

Our lives today abound with tension, deadliness, traffic jams, and along hours at work, the list is seemingly endless sometimes. Stress is our body’s internal reaction to external stimuli coming from the environment. Stress is everywhere and because of it the performance is dramatically affected.

In the modern world scientific approach in sports training and coaching is very essential for high performance. There are various performance factors affecting success of players in competition e.g. physical fitness, past records, environmental factors, psychological makeup and emotions.

Modern organizations presently recognize that people face various types of stress in their daily work and personal life. Stress is an inherent part of life, it cannot be totally eliminated. There is no escape from stress in modern life. People working in every place, develop emotional or physical problems which results in stress. The term stress has been derived from the Latin work ‘stringere’ which mean to draw tight.

Today’s age is age of competition. Every field connected with competition and it includes not only the academic field but also the sports. Every athlete is trying to reach his best capacity by using different types of methods to reach the top and become an Olympic winner.

Everyone knows that ‘energy is capacity to do work’ for every aspect of life we need more or less energy. Though yoga we are able to conserve and create more energy, which can be utilized to develop maximum performance. Yoga teaches us how to control our misleading thought, anxiety, tension, stress, and anger. This entire thing save a lot of energy. This saved energy can be utilized to develop maximum performance. In today’s highly competitive world it
is very essential to possess a disciplined and stable mind for optimum performance in any field, especially in sports in yoga with the help of pranayama.

**Concept of Stress:**

The stress of creative successful work is beneficial, which that of failure, humiliation or inflection is detrimental. He believed that the biochemical effect of stress would be experienced irrespective of whether the situation is positive or negative. Hans Selye (1975-76) defined stress as a variation from one’s state of being in ‘eustress’ which is marked by man. Specific to any demand made on it to adopt. Selye divided demands into three categories:

1. Distressors – Negative stressors
2. Eustressors – Positive stressors
3. Neutrals – Those stressors that by themselves have neither a negative or positive effects on us.

**EMERGENCE OF THE PROBLEM:**

Modern life is full of stress. As organizations became more complex, the potential for the amount of stress increases. Urbanization, industrialization and globalization are causing increasing stresses.

The modern organizations presently recognize that people face various types of stress in their daily work and personal life stress is inherent part of life, it cannot be totally eliminated. There is no escape from stress in modern life. People working in every place develop emotional or physical problems which results in stress. Learning to live and get ahead today is not possible today without stress. Anything that brings on feelings of stress is called stressors. Living in today’s fast paced world there are many stressors that we have to face with. These many include adapting to constant, rapid change, handling the major life event and responsibilities and going from one stressful situation to the next without taking time to relax. When one is faced with stress, certain hormones in the body are released that trigger many changes in body.

The relationship between stress and performance in sports is a central topic of investigation for sports psychology and has been quantitatively explored in depth over the last three decades. The ability to cope effectively with stress is suggested to be one of the most important determinants in athletic performance (Patmore, 1990).
Many people take up sports mainly for the fun and thrill of it. However, little is known that sports do experience its fair share of stress as well. Stress has reportedly been the cause of many poor performances among the athletes and sportsmen.

In sports field, sportsmen from different games have different type of stress according to situation. In team game stress on player is different as compared to individual game. Different situation in sports create the stress e.g. at the time of starting of game, at the time of ending the game or at the time of equal scoring. Different positions in sports also create the different type of stress such as captain of team would have more stress than a normal player. ‘Athletics’ is derived from the Greek word ‘Athlos’ meaning fight, competition or combat. Athletics provides more than almost any other activity, the opportunity for people to measure themselves in competitive situation.

Success in athletics calls for preparation, technique, skill and both analytical and competitive abilities. The top class athlete needs to have prepared careful so that speed, stamina and power are all highly tuned.

**Concept of Pranayama:**

(1) Pranayama (Rhythmic control of breathing or regulation of breathe): Pranayama is a breathing practice to breath in, to breath out and to be relaxed ‘Prana’ means ‘life force’ and ‘ayama’ means to control flow of life force through the body. Pranayama helps in controlling all the functions of breathing namely- inspiration a (purak), expiration (rechaka) and retention (kumbhaka) and thereby controls the mind. Although it is difficult to control the mind, yet through practice of pranayama it can be controlled.

(2) Pratyahara – restraining or withdrawal of senses.

(3) Dharana – Concentration

(4) Dhyana – Meditation: Meditation is for natural wisdom of own true-self. In this stage, the dharana stage is prolonged and continued (uninterrupted) and thus enables a person to concentrate and also mediate. In the process of meditation the person is able to integrate his body, breathe, senses, mind, reasons and ego.
(5) Samadhi – state of super-consciousness: Asanas also have an effect on the emotions. Tension caused by emotional distress of some sort make the muscle contract. Any effort to loosen this tension can cause tremors in the muscles. The muscle tone is affected by the neuromuscular impulses. Lack of rhythm in the neuromuscular impulses causes tremors. By promoting muscle tone, Asanas bring about emotional stability also.

**STATEMENT OF THE PROBLEM:**

The purpose of the study was to study the “A Study of the Effect of Pranayama Training Programme on Stress of Gymnasts”. Aged 14 to 17 Years.

**OBJECTIVES OF THE STUDY:**

1. To measure the stress level of gymnasts.
2. To study the relationship between stress level and pranayama.
3. To prepare pranayama training programme for gymnasts.
4. To analyze the stress level and performance of gymnasts.
5. To study and compare the stress during off-season and in-season training programme.
6. To give suggestions for further research.

**HYPOTHESIS:**

**H1:** According to the researcher, there is no significant difference in conflict score due to treatment.

**H2:** According to the researcher, there is no significant difference in pressure score due to treatment.

**H3:** According to the researcher, there is no significant difference in anxiety score due to treatment.

**H4:** According to the researcher, there is no significant difference in frequency score due to treatment.

**H5:** According to the researcher, there is no significant difference in total stress score due to treatment.
**H6:** There is no significant difference in quantity score as residence wise; There is no significant difference in quantity score due to treatment; there will be no interaction between residential type and treatment to quantity score.

**H7:** There is no significant difference in total stress score as residence wise; There is no significant difference in total stress score due to treatment; there will be no interaction between residential type and treatment to total stress score.

**DELIMITATIONS:**
1. The subjects for this study will be taken from M. S. M’s Gymnastics Center, Aurangabad.
2. The study will be conducted on subjects studying in IX to XII standard.
3. The study will be conducted between the ages of 14 to 17 years.
4. The study will be delimited to only male gymnasts.
5. The study of stress will be delimited for four factors which measured by Stress Scale named Bisht Battery Stress Scale (BBSS) which as frustration, conflict, pressure and anxiety.
6. The study will also be delimited for a particularly designed pranayama training programme.

**LIMITATIONS:**
1. The hereditary aspects along with psychological makeup of gymnasts are limitations for the study.
2. There would be no control on socio-economic status of the subjects.
3. The factors affecting residential and social climate for each gymnast would be a limitation.
4. Geographical conditions, diet and nutrition of subjects will not be considered.
5. Past experience that would affect the stress level will be a limitation of the study.
6. Stress in gymnastics for this study will only be considered.

**SIGNIFICANCE OF THE STUDY:**

Stress is one of the biggest threats to our physical and mental health. Stress cannot be avoided but it can be managed in way that it does not become a source of trouble.

Pranayama is a cognitive or mental technique for relaxation which utilizes the mind to muscle approach. Practicing of pranayama is a good way to increase concentration in gymnasts which leads to improve performance (Mohan, J. Sehgal, M. 2005).
It thus becomes important to analyze the relation between pranayama training programme and stress level of sportsmen. The data thus collected would help sportsmen, sports teacher, coaches, psychologists to use stress management techniques like relaxation through pranayama training programme to improve the performance.

OPERATIONAL DEFINITION OF THE TERMS USED:

1. Yogic Training Programme- A training programme containing yogic activities which includes prayer, chanting of Omkar, relaxing asanas Pranayama breathing techniques and yoga nidra. The programme would be of three months duration.

2. Stress- Stress is a state of tension produced by pressures or conflicting demand with which the person cannot cope adequately.

3. Gymnasts – male subjects who compete in the artistic gymnastics competition representing Aurangabad and Maharashtra from M. S. M. Khadkeshwar, Aurangabad.

4. Secondary and higher secondary level – the subjects studying in IX to XII standard in schools of Aurangabad district whose age in between 14 to 17 years.