CHAPTER I
INTRODUCTION

In contemporary times, the word Stress has many connotations and definitions based on various perspectives of the human condition. In Eastern philosophies, stress is considered to be an absence of inner peace. In Western culture, stress can be described as a loss of control. Noted healer Serge Kahili King has defined stress as any change experienced by the individual. This definition may be rather general, but it is quite correct. Psychologically speaking, stress as defined by noted researcher Richard Lazrus is a state of anxiety produced when events and responsibilities exceed one’s coping abilities. Physiologically speaking, stress is defined as the rate of wear and tear on the body. Selye added to his definition that stress in the nonspecific response of the body to any demand placed upon it to adapt, whether that demand produces pleasure or pain. Selye observed that whether a situation was perceived as good (e.g., a job promotion) or bad (e.g., the loss of a job), the physiological response or arousal was very similar. The body, according to Selye, doesn’t know the difference between good and bad stress.

However, with new psychoneuroimmunological data available showing that there are indeed some physiological differences between good and bad stress (e.g., the release of different neuropeptides), specialists in the field of holistic medicine have expanded Lazarus’s and Selye’s definition as follows: Stress is the inability to cope with a perceived as (real or imagined) threat to one’s mental, physical, emotional, and spiritual well-being, which results in a series of physiological responses and adaptations. The important word to emphasize here is perceived (the interpretation), for what might seem to be a threat to one person may not even merit a second thought to another individual. For example, not long ago a raffle was held, with the winning prize being an all-expenses-paid one-week trip for two to a beach resort in
Bermuda. Kelly, who won the prize, was ecstatic and already had her bags packed. Her husband, John, was mortified because he hated to fly and he couldn’t swim. In his mind this would not be a fun time. In fact, he really wished they hadn’t won. Each perceived the same situation in two entirely different ways. Moreover, with the wisdom of hindsight, our perceptions often change. Many episodes which at the time seemed catastrophic later appear in significant, as humorously stated by Mark Twain when he commented, “I’m an old man and I have known a great many troubles, but most of them never happened.” The holistic definition of stress points out that it is very complex phenomenon affecting the whole person, not just the physical body, and that it involves a host of factors, some of which may not yet even be recognized by scholars and researchers. As more research is completed, it becomes increasingly evident that the responses to stress add up to more than just physical arousal; yet it is ultimately the body that remains the battlefield for the war games of the mind.

**The Stress Response**

In 1914 Harvard physiologist Walter Cannon first coined the term fight-or-flight response to describe the dynamics involved in the body’s physiological arousal to survive a threat. In a series of animal studies, Cannon noted that the body prepares itself for one of two modes in immediate action to attack or fight and defend oneself from the pursuing threat, or to run and escape the ensuing danger. What Cannon observed was the body’s reaction to acute stress, what is now commonly called the stress reaction. Additional observations suggested that the fight response was triggered by anger or aggression and was usually employed to defend territorial boundaries or attack aggressors smaller in size. The fight response required physiological preparations that would recruit power and strength for a short duration, or what is now described as short but intense anaerobic work. Conversely, the
flight response, he thought, was induced by fear. It was designed to fuel the body to endure prolonged movement such as running away from lions and bears. In many cases, however, it included not only fleeing but also hiding or withdrawal (a variation on the flight response is the freeze response, often noted with post-traumatic stress disorder, where a person simply freezes, like a deer staring into a car’s headlights). The human body, in its entire metabolic splendor, actually prepares itself to do both at the same time. In terms of evolution, it appears that this mechanism was so advantageous to survival that it developed in nearly all mammalian species.

In simple terms, there are four stages of the fight-or-flight response:

**Stage 1.** Stimuli from one or more of the five senses are sent to the brain (e.g., a scream, the smell of fire, the taste of poison, a passing truck in your lane).

**Stage 2.** The brain deciphers the stimulus as either a threat or a no threat. If stimulus is not regarded as a threat, this is the end of the response (e.g., the scream came from the television). If, however, the responses are decoded as a real threat, the brain then activates the nervous and endocrine systems to quickly prepare for defense and/or escape.

**Stage 3.** The body stays activated, aroused, or “keyed-up” until the threat is over.

**Stage 4.** The body returns to homeostasis, a state of physiological calmness, once the threat is gone.

**Types of Stress**
To the disbelief of some, not all stress is bad for you. In fact, there are many who believe that humans needs some degree of stress to stay healthy. The human body craves homeostasis, or physiological calm, yet it also requires physiological arousal to the optimal functioning of several organs, including the heart and musculo skeletal system. How can stress be good? When stress serves as a positive motivation, it is considered beneficial. Beyond this optimal point, stress of any kind does more harm than good.

Actually, there are three kinds of stress: eustress, neustress, and distress. Eustress is good stress and arises in any situation or circumstance that a person finds motivating or inspiring. Falling in love might be an example of eustress; meeting a motive star or professional athlete may also be a type of eustress. Usually, situations that are classified as eustress are enjoyable and for this reason are not considered to be a threat. Neustress describes sensory stimuli that have no consequential effect; it is considered neither good nor bad. News of an earthquake in a remote corner of the world might fall into this category. The third type of stress, distress, is considered bad and often is abbreviated simply, as stress. There are two kinds of distress: acute stress, or that which surfaces, is quite intense, and disappears quickly, and chronic stress, or that which may not appear quite so intense, yet seems to linger for prolonged periods of time (e.g., hours, days, weeks, or months). An example of acute stress is the following. You are casually driving down the highway, the wind from the open sunroof is blowing through your hair, and you feel good about life. With a quick glance in your rearview mirror you see flashing blue lights. Yikes! So you slow down and pull over. The police car pulls up behind you. Your heart is racing, your voice becomes scratchy, and your palms are sweating as you try to retrieve license and registration from your wallet while rolling your window down at the same time. When the officer asks you why you were speeding you can barely speak; your voice is three octaves higher than usual. After the officer runs a check on your car and
license, he only gives you a warning for speeding. Whew! He gets back in his car and leaves. You give him time to get out of sight, start your engine, and signal to get back onto the highway. Within minutes your heart is calm, your palms dry, and you start singing to the song on the radio. The threat is over. The intensity of the acute stress may seem cataclysmic, but it is very short-lived.

Chronic stressors, on the other hand, are not as intense but their duration is unbearably long. This might include the following: being stuck for a whole semester with “the roommate from hell”, a credit card bill that only seems to grow despite monthly payments, a boss who makes your job seem worse than that of a galley slave, living in a city you cannot tolerate, or maintain a relationship with a girlfriend, boyfriend, husband, or wife that seems bad to stay in but worse to leave. For this reason, chronic stressors are thought to be the real villains, and it is this type of stress that is associated with disease, because the body is perpetually aroused for danger.

A concept called the Yerkes-Dodson principle, which is applied to athletic performance, lends itself quite nicely to explaining the relationship between eustress, distress, and health. As can be seen in FIG.1.3, when stress increases, moving from eustress to distress, performance or health decreases and there is greater risk of disease and illness. The optimal stress level is the midpoint, prior to where eustress turns into distress. Studies indicate that stress-related hormones in optimal doses actually improve physical performance and mental-processing skills like concentration, making you more alert. Beyond that optimal level, though, all aspects of performance begin to decrease in efficiency. Physiologically speaking, your health is at serious risk. It would be simple if this optimal level was the same for all people, but it’s not. Hence, the focus of any effective stress-management program is twofold: (1) to find out where this optimal level of stress is for you
so that it can be used to your advantage rather than becoming a detriment to your health status, and (2) to reduce physical arousal levels using both coping skills and relaxation techniques so that you can stay out of the danger zone created by too much stress.

**College Stress**

What makes the college experience a significant departure from the eighteen years of life is the realization that with the freedom of lifestyle choices come the responsibilities that go with it. Unless you live at home while attending school, the college experience is one in which you transition from a period of dependence (on your parents) to independence. As you move from the known into the unknown, the list of stressors a college student experiences is rather starting. Here is a sample of some of the more common stressors that college students encounter.

- **Roommate dynamics:** Finding someone who is compatible is not always easy, especially if you had your own room in your parents’ house. As we all know or will quickly learn, best friends do not make the friends over time. Through it all, roommate dynamics involve the skills of an conditions. And should you find yourself in an untenable situation, remember, campus housing does its best to accommodate students and resolve problems. However, their time schedule and yours may not always be the same.

- **Professional pursuits:** What major should I choose: Perhaps one of the most common soul searching questions to be asked in the college years is, what do I want to do the rest of my life? It is a well-known fact that college students can change majors several times in their college careers and, any do. The problem is compounded when there is parental pressure
to move toward a specific career path (e.g., law or medicine) or the desire to please your parents by picking a major.

**Aerobics**

Nineteen years ago, the term aerobic dance was known to very few people. Dr. Kenneth H. Cooper was conducting tests to measure aerobic capacity i.e. the efficiency of the heart and lungs in processing oxygen when the vivacious former cheer leader Jacki Sorensen volunteered to be a subject. Jacki was a dancer, not a runner, as were most of those who achieved the excellent rating in the test for aerobic capacity. Jacki coupled the term dance with aerobics and started a programme for fitness, based or traditional song, leader-style dance movements.

Aerobic dance can best be defined as continuous movement exercise, locomotor movement and dance steps performed to music. The variety and style of the movement and the musical accompaniment provide many forms of aerobic dance programmes as there are interests and tests of people performing them. In contrast to a competitive or solitary fitness programme, aerobic dance provides an opportunity for people of widely different levels of physical ability to participate in the same facility, with the same musical accompaniment, engaging in exercises and skills which have been choreographed according to the needs of each individual.

An aerobic dance work-out is divided into four phases: Warm-up, skill review, aerobics and cool down. Each phase has its own purpose without which the work-out is incomplete. Each phase of the programme is necessary, if aerobic dance is to provide the desired benefits.

The best reason to start aerobic dancing is that it is fun, it can tailor; make the work-out to the liking music, with friends to enjoy. But aerobic dance also affords each participant benefits of all components of fitness including flexibility, muscular endurance, cardio respiratory endurance,
agility, balance and coordination. Through strengthening exercises, the muscles become better defined, and the body becomes firmer and more attractively cantered. By strengthening the muscles it is able to achieve correct body alignment and body carriage. With increased flexibility and strength it is able to move with freedom, rhythm and grace. The soft rebound skills increase body balance and coordination, which carry over to many other sports and every-day activities. With increased energy and signs of vitality, you take on a healthy, vibrant appearance.

A regular programme of aerobic-dance can lay the foundation for an invigorated, enriched and healthy life. No matter what one’s present fitness level-a novice, a sometime exercises or a highly conditioned long-time performer-if one enjoys music and movement and seeks a higher degree of physical conditioning, aerobic dance may soon become one’s favorite form of exercise.

Since, dance aerobics consist of a preplanned or choreographed series of dance steps and exercises done to music, it is considered to be an enjoyable way to condition cardio respiratory system. Exercising to music in a group-setting seems to remove some of the drudgery that many people experiences in trying to maintain an exercise programme alone. Thus, the combined effects of aerobics and recreational activities like dance and music are said to not only improve health-related fitness but also help in relaxing the mind from day-to-day tensions. These can be performed at home when individuals can find time from their routine.

Aerobic dance is a popular fitness activity that can improve cardio respiratory endurance, muscular strength and endurance can help to maintain proper body weight. To maximize the fitness benefits of aerobic dance, the routine ought to be maintained approximately forty minutes and be done three or four times per week. Dance movement need not be used for entertainment
alone... a little bit of though and creativity could make it a good therapy for differently able people.

Some sports require that a great deal of physical force be directed against one’s opponent, whereas other requires forceful action against the environment instead of direct aggression. However, many sports require that individual aggress within structured rules and specified conditions. Stressful also is the fact that in many sports all-out aggression is alternated with periods of total absence of action. Thus, in sports as in life, one problem is to encourage an optimum amount of aggression when called for and to enable athletes to suspend aggression when that is called for.

Some athletes are unable to keep their aggressive tendencies within bounds, dictated by good sense by the rules. Moreover, impediments to many athletes’ performance arise when an athlete projects his aggressive tendencies inward and blames himself inordinately when his performance is not all that he desires.

Young humans and some advanced animal species greet the world in a happy state. At first they relate well to their parents, to other members of their family, and to children they contact. In the final part of their first year of life, however, they often compete for objects and exhibit aggressive tendencies, particularly when their needs are frustrated. As they acquire the means for combative behavior, many become openly aggressive towards other children and the adult figures in their lives.

At this point the aggressive tendrers seen later in life begin to be formed. This formulation occurs in several ways:

1. Parents encourage aggression in their children in direct ways and by providing “models” of themselves that are aggressive towards others and towards the environment. In general, who view an aggressive adult,
particularly if successful as a result of his aggression, will grow up with the tendency to aggress.

2. Parents tend to punish aggression in their children. A number of studies indicate that:

   a. The parents who suppress aggression in his or her children in reasonable ways is likely to have a child who is in good control of himself in later life situations that could elicit aggressive behaviors.

   b. The parent who fails to punish aggression in his children is likely to produce extremely aggressive children.

   c. The parents, who suppress all aggression, particularly if the suppression is done in a harsh manner, are likely to produce a child who is overly aggressive in later life.

**Progressive Relaxation Exercise**

To many people, relaxation training means learning techniques such as ‘tense-release’ i.e. the tightening and letting-go of specific muscle groups. Tense-release is an active process in the sense that the individual is working his muscles. Some muscle relaxation methods however, are concerned only with the ‘release’ part of the sequence, and these could be described as passive muscular approaches.

Working as a physiologist-physician in the 1930s, Edmund Jacobson was investigating the startle reaction that follows a sudden loud noise. He noticed that when subjects, they made no start. Thus, the state of the muscle influenced the magnitude of the reflex. He invented a technique for measuring the electrical activity in muscles and nerves which became known as electromyography (EMG), and which allowed him to study aspects of mind-body interaction. As a result, he found that thinking was related to muscle state and that mental images, particularly those associated with
movement, were accompanied by small but detectable levels of activity in the muscles concerned.

This integrated activity between the mind and the muscles led him to view the brain centers and the voluntary muscles as working together ‘in one effort circuit’ (Jacobson 1970); a neuromuscular circuit since it was composed of both neural and muscular tissue. He proposed that a relaxed musculature could lead to the quietening of thoughts and the reduction of sympathetic activity, and saw his task as finding a way of inducing the skeletal muscles to lose their tension.

Muscle activity is accompanied by sensations so faint that we do not normally notice them. To promote awareness of tension, Jacobson emphasizes the need to concentrate on those sensations, cultivating what he called ‘learned awareness’. Once tension had been recognized, it would be easier to release it. If relaxation were then achieved, however, how deep would it be?

It is traditionally held that healthy muscle, even during rest, is in a state of sustained, slight contraction. This is called muscle tone. Jacobson’s EMG studies (1938) did not however, support this notion. He found that voluntary muscle could achieve a state of complete relaxation during rest. He consequently formed the view that the aim of relaxation training should be to eliminate all tension, and relaxation could only be called complete if it proceeded ‘to the zero point of tonus for the part or parts involved’ (Jacobson 1938). Any tension that remained while resting a muscle was called ‘residual’ and it was this residual tension that Jacobson sought to eliminate in deep relaxation. Doing away with residual tension is… the essential feature of the present method’ (Jacobson 1976).

Defining relaxation as the cessation of activity in the skeletal (voluntary) muscles, Jacobson devised a technique which he called progressive relaxation. It consisted of systematically working through the
major skeletal muscle groups, creating and releasing tension. As a result, the trainee learned how to recognize muscle tension. Only one muscle action was carried out in each session and it was repeated twice. The rest of the time was spent releasing tension. Jacobson (1938) insisted that his method be regarded as a skill to be learned. Unlike most other approaches, he discouraged the use of suggestion. Trainers were urged to avoid planting ideas of the kind: ‘Your limbs are heavy/limp/relaxed’ or even ‘Notice how your limbs are feeling heavy/limp/relaxed’. Jacobson wanted the learner to make his own discoveries.

**Evaluation of progressive relaxation exercise**

Jacobson used electromyography, a technique which he invented, to measure muscle tension. By this means he showed that progressive relaxation had a direct effect on the release of tension in the skeletal musculature. The more practiced the trainee, the greater the effect. He also showed that progressive relaxation had an indirect effect on anxiety levels, and that, via brain mediation, it promoted parasympathetic dominance (Jacobson 1983).

Subsequent research on the effectiveness of progressive relaxation and comparison with other relaxation approaches has not, however, produced consistent results, although much of this later work suffers because of the superficial training in progressive relaxation given to participants (Borkovec & Sides 1979, Lehrer 1982).

Jacobson, who was a pioneer in this unexplored area, carried out research which was meticulous by the standards of his day. However, despite careful attention to method, his work, by present day standards, suffers from certain shortcomings. One of these is subject self-election (subjects volunteering to take part). Jacobson drew on his close associates and private patients for subjects, whereas modern standards would demand random selection.
A second methodological deficiency is the relative absence of statistical analysis. Jacobson seldom tested for significance, i.e. conducted analyses to estimate the probability that the results he obtained did not arise by chance (Lichstein 1988). It was not conventional to use probability statistics in his day (Lehrer 1982). In spite of this however, his results often reached levels of statistical significance (Blanchard & Young 1973).

Progressive relaxation in one form or another is widely used in the clinical field for reducing mental tension. Based on a substantial amount of evidence, it is believed that the mind becomes calmer as a result of relaxing the musculature. Not all research findings however, support this view, and there are studies which show little or no correlation between anxiety level and muscle tension. It would seem that any influence exerted by the musculature on mental activity is part of an interactive process as yet not fully understood (Lichstein 1988).

Yoga

Yoga is the oldest known science of self development. It is mental, physical and spiritual control. Developed thousands of years ago in India yoga literally means joining – of the individual self with the universal self. This joining is achieved through the practice and mastering of specific physical postures, called asanas, breathing exercise called pranayama and meditation what is known as rajayoga, and its sub-division’s hatha yoga. Asanas are mostly static body postures that should be executed slowly and without force. Learning and practicing asanas is then step by step and on a regular basis. The postures help you learn autonomic control through passive attention. As pepper pointed out mind or body integration. In the asana the stress captures our passive attention. Asanas are body attention getters to bring a passive attention to a specific area. With the asana it is possible to work body muscles and keep them in good condition that can be used
deliberately for developing a definite muscle group. The effects can be directed, or localized, in a specific area (muscle group or organ). The influence of asanas on organ function is rather complicated for example in reverse postures the force of gravity is used to attain better circulation and restore proper alignment. Function and activity of organs are influenced by asanas in the following ways:

- Increasing pressure in body cavities
- Changing cardiovascular pressure and thereby promoting circulation
- Promoting peristalsis which stimulates digestion
- Producing pressure in specific blood vessels in order to regulate circulation
- Stimulating or inhibiting activity of the endocrine glands
- Physically stimulating specific autonomic nerve centers in order to tune up the autonomic nervous system.

The most important characteristics of asanas is their static nature. If the posture were dynamic it would not be possible to achieve the level of concentration and control breathing as is possible in the static position.

**Aggression**

The expression of aggressive in adolescence and adulthood has parameters other than the parental practices to which they have been exposed. The people and situations to which the adolescent is exposed may also mold his tendencies and success in aggressive situations. However, the rewards he later achieves for success in aggressive sports may, to some degree, overcome child-rearing practices to which he was exposed.

Several prominent theories of aggression have been advanced in the psychological literature.
1. Some have suggested that aggressive tendencies are instinctual, because of the preponderance of aggressive behavior seen in the lower animals. Some writers in this context seem think man will never curb his aggressive tendencies before he extinguishes himself with his own weapons.

2. Others have provided a situational, rather than evolutionary, analysis of human aggressive behavior. They suggest that aggressive behavior is the reaction to frustrations and the attempt to overcome blocks to pleasure and satisfactions. They base their argument upon the aggression that often occurs after frustrating situations and upon the subsequent lowering of aggressive behavior.

Writers accepting the latter theoretical assumptions are also prone to accept the “catharsis theory.” Relating physical expression to aggression, essentially, it has been proposed that physical execution of hostile tendencies will provide a catharsis, or temporarily cure, for aggressive feelings, resulting in a beneficial psychological equilibrium. Diagrammed, this relationship is shown as follows.

Others do not accept this catharsis theory and note that a great deal of evidence suggests that exposure to aggressive models and permissiveness toward aggression in childhood seem to elicit greater amounts of aggression rather than providing a kind of release or cure.
Thus, they have sampled measures of aggression from audiences to substantiating this, Hokanson and his colleagues found that if aggression is directed towards an individual and he has no opportunity to respond in a physically aggressive manner, his blood pressure remains high, whereas if a response is made, blood pressure will be reduced.

Prior to and following the viewing of athletic contests tends to substantiate the second model presented. Measures of aggression in athletes prior to and following competitions, (wrestling seems to be a favorite among researchers) do not uniformly indicate any significant changes neither in basic aggressive tendencies nor in aggressive feelings following competition.

**Self-confidence**

Self-confidence is the knowledge that you can do something and do it with. Self-confidence comes from firsthand knowledge of the task at hand, knowing your strengths and weaknesses, applying your skills to any situation and adapting quickly as the situation unfolds. People who exude self-confidence...
know they have what it takes to master difficult situations, and they are not afraid of failure. Self-confidence is essentially an attitude which allows us to have a positive and realistic Perception of ourselves and our abilities. It is characterized by personal attributes such as assertiveness, optimism, enthusiasm, affection, pride, independence, trust, the ability to handle criticism and emotional maturity. Confidence is learned, it is not inherited. If you lack confidence, it probably means that* as a child, you were criticized, undermined, or suffered an inexplicable tragic loss, for which you either blamed yourself or were blamed by others. A lack of confidence isn't necessary permanent but it can be if it isn’t addressed. Our religion, the influence of the culture which formed our perspectives, our gender, social class and our parents, in particular, are all factors which influence and contribute to our level of confidence and esteem. Confident people have deep faith in their future and can accurately assess their capabilities. They also have it general sense of control in their lies and believe that, within reason, they will be able to do what they desire, plan and expect, no matter what the foreseeable obstacle. But this faith is guided by more realistic expeditions so that, even when some of their goals are not met, those with confidence continue to be positive, to believe in themselves and to accept their current limitations with renewed energy. However, having high self-confidence does not mean they will be able to do everything they want. That view is unrealistic one for the perfectionists. A desire to be good at everything we do in order to impress others stems from a competitive instinct and lack of personal reinforcement. Any truly successful life has both rewards and the ability to learn from any setbacks, which increase our resilience, self-belief and determination. Real confidence requires that we face the possibility of failure constantly and deal with it. However, if we consistently lose out on both achievement and validation, even our identity is called into question.

Self Esteem
Self-esteem is the opinion you have of yourself. It is based upon how you perceive your value as a person, particularly with regard to the work you do, your status, achievements, purpose in life, you relate our perceived place in the social order, potential for success, strengths and weaknesses; how you relate to others and your ability to stand on your own feet. Because esteem is a perception of your worth, your own value of yourself dictates how others perceive you too. Buddhists classify low self-esteem as, "a negative emotion or delusion, which exaggerates one's limitations in capacity, quality and potential for growth". It results from having a poor self-image according to personal experience in all the elements of life mentioned above. People with poor esteem never feel in charge of their lives. They often feel like victims, or outsiders - ignored, excluded, unimportant, insignificant and unlved. As they spend their lives internalizing the criticism of others, taking it to heart while searching constantly for that elusive acknowledgment, their personal assessment will reflect itself in the appraisal of others - no more, no less. But if we allow others to take control of decisions we should make, we gradually become dependent upon them too, abdicating responsibility for our lives, which tends to lead to us being doormats for other people's benefit.

Low self-esteem usually has three sides. The first is exhibited by the individual who always seems to be the underdog, the under-achiever, the negative one who says "I couldn't", "I wouldn't". "I can't". "I have no choice" and "I have to". The opposite side to that, and the second Type, is the person who seems very confident superficially, a take-charge type of person, appearing to be much in control, very opinionated and often found in leadership positions. But this is usually a mask for low self-esteem because he/she is likely to be tense, serious, anxious and finicky. When, things go wrong that's when the low esteem takes to the fore. Often perfectionists, they find crises difficult to handle and tend to blame others for everything. They are usual demanding, self-centered, very independent, and markedly self-sufficient in their distrust of others and slow lo take criticism,
instruction or direction. Locked in their own narrow world, they dread new experience, always going by the book and resenting innovation. In effect, occupying leadership positions without being true leaders. This type of low self-esteem will often deny that anything is wrong, because their belief in being totally in charge and more competent than their bosses or subordinates, is their main production. Yet being fully in charge of your life actually eliminates the need for angry, insecurity and the desire to judge, control or denigrates others. Self esteem is central to our survival it is the basis of our well being. Entire books have been written on the subject of self esteem and yet, there is no single one unifying definition of self-esteem. Self esteem is a confidence in our ability to think, to cope with the basic challenges of life and confidence in our right to be Successful and happy (Nathaniel Branden.)

Statement of the Problem

Every living being has to undergo stressful condition in its lifetime. Stress is an inevitable part of life. Managing stress properly is very important for one to be efficient in his life. Though stress is inevitable for the living organism, excessive stress is always hazardous. It can cause a Varity of cardiac diseases and several other psych somatic disorders. Numerous medical and psychological studies have suggested that a large numbers of visits to a doctor by students are due to psychological problems and many due to acute and chronic problems. It is in this scenario that this particular study is being conducted.

The purpose of the study was to find out the effect of stress management techniques on selected psychological and physiological variables of college students.
The study also aimed at comparing the effect of three types of stress management techniques.

Hypothesis

The following hypotheses were formulated based on the available literature, the subject knowledge and experience of the research scholar.

H1. There will be a significant effect of aerobic dance programme on the stress level of college students.

H2. There will be a significant effect of Yoga training programme on the stress level of college students.

H3. There will be a significant effect of Progressive relaxation technique on the stress level of college students.

H4. There will be a significant effect of aerobic dance programme on the selected physiological variables of college students.

H5. There will be a significant effect of Yoga training programme on the selected psychological variables of college students.

H6. There will be a significant effect of Progressive relaxation technique on the selected psychological variables of college students.

Delimitations

1. The study was delimited to one hundred and sixty male students (N=160) of Government polytechnic college, Kunnamkulam, Trissur district.

2. The age group of the subjects ranged from 16 to 19 years.

3. The selected subjects were equally divided into four groups (n=40) namely:
a. The Aerobic dance training group (ADTG)
b. The Yoga training group (YTG)
c. The Progressive relaxation training group (PRTG)
d. The Control group (CG)

4. The duration of the training period was for two months.
5. The training was given for three days per week on alternate days.
6. The duration of each training session was for one hour.
7. The study was delimited to the following psychological variables:
   a. Aggression
   b. Self-confidence
   c. Self-Esteem
   d. Stress

8. The study was delimited to the following physiological variables:
   a. Resting heart rate
   b. Blood Pressure
      i. Systolic Pressure
      ii. Diastolic Pressure

**Limitations**

1. Sociological and organic aspects of their day to day interactions with the environment could not be controlled.
2. The food habits, hereditary aspects, life style of the subjects could not be controlled.
3. No special motivational technique was used to encourage the subjects attain their maximum performance.
4. To measure the psychological variables questionnaire method had been used. This was also considered as limitation of the study.
5. Changes in atmospheric pressure, temperature, relative humidity and such other meteorological factors during the period of administering the test could not be controlled or assessed, and their possible influence on the selected physical physiological test performance.

**Definition and Explanation of the terms**

**Aerobic Dance**

Aerobic dance is a choreographed routine of movements from various types of dance combined with other rhythmic movements, such as hopping, skipping, jumping and stretching continuously performed to music.

**Yoga**

Yoga is a philosophy that aims to achieve a state of physical, mental and spiritual well being through the practice of posters as well as through conscious relaxation and contemplation (Anne Charlish1999).

**Progressive relaxation training**

A form of Psychotherapy used for treating anxiety disorders in which skeletal muscles throughout the body, often beginning with the feet and legs and working up wards, are first tensed and then deeply relaxed. It is also used as an adjunct to other forms of spchotherapy especially systematic desensitization. It was introduced US physician Edmund Jacobson (1888-1983) and was described in his book Progressive relaxation (1938). Also called Jacobsons progressive relaxation or relaxation therapy (Anderw M. Colman 2006)

**Resting heart rate**

The resting heart rate denotes how hard the heart is working when active. The average resting heart rate women is 78 to 84 per minute, these on an average but it varies (Bateman, McAdem and Sargent, 2008).
Blood Pressure

Blood pressure is the measure of the force the heart needs to push blood through the body. Blood pressure is: ‘The resistance of the blood against the artery walls’ (Bateman, McAdem and Sargent, 2008).

Systolic Blood Pressure

The highest level to which the arterial blood pressure rises during the systolic ejection of blood from the ventricle. When the blood is ejected into aorta and other arteries during ventricular systole, the pressure to a maximum called systolic blood pressure (Bateman, McAdem and Sargent, 2008).

Diastolic Blood Pressure

The lowest level to which the arterial blood pressure falls in the interval between successive heart beats. As the blood drains from the arterioles during ventricular diastole the pressure decreases to a minimum called diastolic blood pressure (Bateman, McAdem and Sargent, 2008).

Self-esteem

How worthy or valuable a person considers him or herself is self-esteem (Cashmore 2004).

Self-confidence

Self-confidence is typically understood as an attribute possessed by subjects who trust their own abilities and judgement, are self-reliant and assured and perhaps, on occasion, bold (Cashmore 2004).

Aggression

Aggression is behavior, or a propensity to behave in a way, that is either intended or carries with it a recognizable possibility that a living being will be harmed, physically or psychologically (Cashmore 2004).

Stress
Stress is strictly speaking, a constraining or propelling force or pressure that causes a significant change in a system; alternatively, it may be approached as the responses of a system to the force; or even the relationship between the two. The process by which environmental events threaten or challenge an organism’s wellbeing and by which that organism responds to this threat. The term stress is taken from ‘distress’ originally destresser, an Anglo-French word meaning to vex or make unhappy.

Athletes are set to be under stress when expectations of them are as they see them, too high or, less commonly, too low. The effect of stress include anxiety, such as when the situation facing a competitor is seen as threatening, or too much arousal, possibly precipitated by intense preparation for a contest (Cashmore 2004).

**Significance of the study**

It is a known fact that the students do feel stressed due to various reasons especially during their late teens. The selected students for the study undergoing their Diploma in engineering fell under this category. The students self confessed they do want some method to overcome this stress they felt on enquiry. The aim was precisely to probe into any such possibility by selecting three stress management techniques and how it could be adopted to their academic schedule and find out if these techniques would genuinely help them in overcoming their stress. Often the students at this age do fall into a trap of false belief and peer influence and getting into the habits of alcohol or smoking. The study would be helpful in helping the youth to overcome the dangers of self abuse.