Review of literature

We must first prepare, as a foundation for the whole, a complete and accurate natural and experimental history. We must not imagine or invent, but discover the acts and properties of nature.

-Sir Francis Bacon:
Since the era of human civilization rational analysis of the natural world has been started by man and still its continuing. The philosophers of ancient Greece were earliest to write about physiological and organic approaches to deviance. In those days, described or psychotic behavior was interpreted as a form of punishment for offences against the God. In the centuries that followed, the idea that a person’s life is in hands of the God, gradually declined at least among educated citizens. The Greek philosophers become increasingly curious about aspects of the individuals that might explain normal as well as abnormal behavior. Extreme mental deviations and disorders came to be viewed as natural phenomenon for which rational treatments might be developed. The ancient Egyptians as well as the Mesopotamians and Hebrews, believed the seat of mind to be in the heart. For the Greeks, however, the brain was the seat of the mind. Despite the lack anatomical knowledge, the Greek physician Hippocrates (460-377BC) looked to the brain in his efforts to explain, “Why people behave as they do”. He described the brain as the interpreter of consciousness and as the body’s most important organ. He described epileptic seizures, and concluded that they were caused by a diseased brain. He also wrote about depression, states of delirium, psychosis, irrational fears (i.e. phobia) and hysteria. He and his followers become known for their ability to recognize and treat mental illness. Their therapeutic techniques consisted of rest bathing dieting.

Three other Greek philosophers also deserve mention for their contribution to abnormal psychology. Socrates (470-399) was interested in self-exploration and considered reasoning to be the corner stone of the good life and personal happiness. He believed in using inquiry to further
knowledge; his goal was to teach by asking questions instead of giving answers. Today this procedure—“Socratic method”—is a valuable teaching tool as well as a component of the scientific method. Plato (427-347 BC) developed the organism approach. He believed that disturbed behavior grew out of conflicts between emotions and reasons. According to him, the ideal individuals are guided by reasons. In his laws, he expressed the belief that people who have lost their reason should be separated from the society.

Aristotle (384-322 BC) a pupil of Plato and the teacher of Alexander the great, wrote extensively on the nature of reasoning and consciousness and also sought to analyze human emotions. He described and speculated about a number of emotions and motivational states, including anger, fear, envy, courage, hatred and pity. Like most of the Greek philosophers he placed the highest value on reason and application.

Galan (AD 130-200), the great Greek physician, consolidated and augmented the Greek theories of mind and body. He elaborated on ancient theories about the role of the four humors in personal character and temperament. According to these theories the material world was made-up of four elements- Earth, Air, Fire, and Water- which combined to form four essential body fluids (or humors). The balance of these body fluids controls the temperament of the individuals. These body fluids are blood, black bile, yellow bile and phlegm. In balances among these fluids believe to cause various disorders.

The rational approach to the ancient philosophers laid the groundwork for modern science. It led to attempts to classify abnormal
behavior according to some constant scheme. It temporarily replaced magical and religious explanations of abnormal behavior with a quest, through observation and reason, for natural causes. Except for a break during the middle ages, that question has continued up to the present time.

Therapies changed frequently with the advancement of knowledge and have undergone cyclic changes from very early times. Johann Weyer (1515-1576), a physician emphasized psychological conflicts and disturbed interpersonal relationships as causes of mental disorder on the basis of careful psychological examination of mental patient, he described a wide range of abnormal behavior included the disorders known today as paranoia, epilepsy, psychosis, depression and persistent nightmare. His writings represent a major step towards the separation of abnormal psychology from theology.

Gradually the basis of understanding the natural world changed. In 17th and 18th centuries “reason” and ‘scientific methods’ came to replace ‘faith’ and ‘dogma’ as ways of understanding the natural world. The English physician William Harvey (1578-1657), who worked on the human circulatory system, wrote about the relationship between the psychological and physiological aspects of life. Baruch Spinoza (1632-1677) anticipated modern approaches to psychology physiology with his argument that mind and body are inseparable. He discussed psychological causation and the roles of emotions, ideas and desires in human-life. He even referred to unconscious mechanism that influences behavior. The 17th century is known as the enlightenment. During the age of reason a number of authors probed specially, deeply into the problems of human motivation and emotions. The earliest recorded therapeutic
aspects of psychological disorders were a combination of religious, magical and/or medical perspective (Benjamin, 2007). Wilhelm Wundt first of all opened his psychological clinic 1879 and tried to create methods for assessing and treating the mental distress.

Although clinical Psychologist originally found on psychological assessment, the practices of psychotherapy become integrated into the profession after the World War 2nd. Psychotherapy began with the practice of psychoanalysis, ‘the talking cure’, developed by Sigmund Freud. Soon after words, theorists (Alfred Adler and Carl Jung) began to introduce new conception about psychological functioning and change. In the 1920’s behaviorism become the dominant paradigm and remain so until the 1950’s. Major contributors were Joseph Wolpe, Han’s Eysenck and B F Skinner. Because behaviorism denied or ignored internal mental activity, this period represent a general slowing of advancement with in the field of psychotherapy.

Wilhelm Reich (1930) began to develop body psychotherapy. Starting in the 1950’s, to main orientation evolved independently in response to behaviorism – cognitive and existential humanistic therapy (Reisman, 1991).

Counseling and Psychotherapy theories developed during the beginning of the 20th centuries. The most renowned work is that of Sigmund Freud, whose research into the human mind began in Vienna in 1881. He received training to become working with potentials that were classed as hysterical. He named his method as psychoanalysis and continued to practice his theories until the 1930’s. Although Freud is considered as the oldest psychological theories, it was Franz Anton
Mesmer, the 18th century physician who discovered animal magnetism (mesmerism) and James Braid, who developed hypnotherapy using inspiration from Mesmer’s ideas. Hypnosis was a technique, Freud adopted in his early work, to treat mind disorders. Freud didn’t concentrate much on this technique and continued to develop his own theories. He considered hypnotherapy as a useful technique with certain problems, however Freud work remains the most well known in recent time. He proposed the division of the mind into Ego, Superego and Id. He also believed that infants pass thorough oral, anal and phallic stages and becoming ‘stuck’ in one of the phases could lead to disastrous consequences.

Carl Jung was a close colleague of the Freud but eventually split from Freud to pursue his own school of analytical psychology. His ideas are also widely recognized in recent times. Alfred Adler, Sandoz Ferenczi, Karl Abraham and Otto Rank are other influential theorists who worked closely with Freud, Carl Jung and other descendants of Freud approach’s, focused heavily on psychodynamic theories.

The humanistic movement largely developed from both Existential theories of writers like Rollo May and Viktor Frank and the Person-centered Psychotherapy of Carl Rogers. These orientations all focused less on the unconscious and more on promoting positive, holistic change through the development of a supportive, genuine and empathic therapeutic relationship.

During the 1950’s, Albert Ellis developed the first form of Cognitive Behavioral Therapy. Rational Emotive Behavior therapy (REBT) and few years later Aaron T. Beck developed Cognitive
Therapy. Both of these included therapy aimed at changing a person’s beliefs, by contract with the insight based approach of psychodynamic therapies or the newer relational approach of humanistic therapies. Cognitive and Behavioral approaches were combined during the 1970’s, resulting in CBT (Reisman, 1991). Being oriented towards symptoms relief collaborative empiricism and modifying core beliefs this approach has gained widespread acceptance as a primary treatment for numerous disorders.

Since the 1970’s, other major perspective have been developed and adopted within the field perhaps the two biggest have been systems therapy- which focuses on the spiritual facts/ facet of human experience. Other important orientations developed in the last three decades include Feminist therapy, Somatic Psychology, Expressive therapy and applied positive psychology. Practice in India developed from both traditional metaphysical and Ayurvedic system and Western methodologies (Hall and Llewelyn, 2006).

In the beginning of the era of human civilization, the described or psychotic behavior of people was interpreted as a form of punishment for offences against the God. Gradually awareness and curiosity of Man to know about the nature, behavior and other aspects of human-beings discovered a variety of mental status; some of which described as ‘normal’ and others as ‘abnormal’. In due course of time several mental and behavioral abnormalities were categorized under psychotic and neurotic disorders.

Wilhelm Wundt (1979) first of all established a clinical psychological lab in Leipzig for the treatment of mental distress. He tried
to create methods for the assessment of abnormal mental status of patients. Since then the clinical aspects of psychotherapy started. The area of mental abnormalities is very wide. These abnormalities have been grouped under two categories- psychosis and neurosis and both of the two have further being sub-divided into different types. In the modern knowledge of psychological disorders, these two terms- ‘psychosis’ and ‘neurosis’, have been omitted out and particular disorder is known by a specific name.

Among different types of disorders, Anxiety disorder is very common in the human beings of present social environment. A WHO report 1999, states that 4% people in the society suffer from anxiety disorders. Therefore the present study was concentrated on the effect of different therapies on anxiety disorders.

A number of workers have worked on the treatment of several anxiety disorders by different therapies. The study of different workers, regarding the therapies on anxiety disorders, is being listed here. Work on all therapies are described under separate headings-

JPMRT and its modifications

Relaxation, as a technique, was systematically used at first by Edmund Jacobson (1938). He reported that progressive relaxation training resulted in decreased activity of the sympathetic nervous system. Since that time several studies and researches have examined the clinical aspects of relaxation. Jacob (1940) long ago showed that pulse rate and blood pressure were diminished by deep muscle relaxation.
Drovata (1962) Clark (1963) and Wolpe (1964) subsequently demonstrated that during relaxation skin resistance increases and respiration becomes slower and move regular.

Benson (1975) described that relaxation is a state of deep rest in which the metabolism of the body slows, less oxygen in burned, the heart and respiration rates drop, blood-pressure drops, and brain waves slow to an alpha state. It may help the patient reduce physiological or psychological states associated with increase in blood pressure, muscle activity, ANS activation on anxiety and depression. Arthur Canter et al (1975) compared EMG feedback and Jacobson’s muscle relaxation technique on the patients suffering from anxiety neurosis. Patients were divided in two groups and frontalis muscle was chosen as the target for feedback training and the measurement of tension reduction in both groups. The reason for considering this muscle was that this muscle has been shown to reflect the general muscle tension level in anxious patients. Both the therapies produced significant reductions in frontalis tension levels. However, EMG feedback was found to be generally superior in producing larger reductions in muscle activity, with a concomitant relief in anxiety symptoms, for a greater number of patients.

According to Phillips and Judd (1978), relaxation technique is one of the primary behavioral techniques, although various relaxation procedures have been reported in the literatures. Deep muscle relaxation technique is a systematic way of driving our tension by letting our mind become aware of and relaxation each part of our body.

Garrison & Scott (1979) found that self care approach was a good remedy for the management of the stress. They postulated a procedure,
called stress management training. They used this technique in the treatment of a variety of stress related medical and psychological patients. The training was consisted of three components - the first, giving the patient a cognitive understanding of stress and relaxation; the second, teaching the patient to relax by controlling the muscle tension and sympathetic nervous system activity and the third, teaching the patient to generalize the relaxation skill to real life stress situations.

Shoshana and Paul (1980) compared autogenic training and progressive relaxation technique is reducing the anxiety, depression, number of symptoms and intensity of symptoms. They found the both the techniques significantly decreased SCL-90 scores on the four scales. Autogenic training appeared to produce specific effects also on self perception on heaviness, warmth in the limbs and depth of breathing. However, there were no significant differences between groups in pretest verses posttest changes in heart rate or skin conductance.

Wolpe (1982) modified the behavior therapy and developed the relaxation training program. He reported that relaxation produced emotional calmness. He enunciated his findings after performing a relaxation program which was consisted of six training sessions.

Fiedler and Gochfeld (1989) evaluated the relaxation training program using ambulatory blood pressure monitoring. The results indicated that the stress management technique decreased the diastolic blood pressure.

A perusal of literature shows that relaxation training appears to be widely used in the clinical setting. Studies reported that it has been effective in the treatment of various psychological problems, such as
anxiety (Jacabson, 1938) hypertension (Beiman et al, 1978) Phobia (Upper et al, 1984) Stress management (Legeron, 1993) etc. Psychotherapy by reciprocal inhibition was also found effective in reducing anxiety (Rachman, 1968). Deberry et al (1989) compared meditation, relaxation and cognitive behavioral technique found that all the relaxation therapies reduced anxiety and depression in a geriatric population. Rees (1992 & 1995), examined the effect of relaxation with guided imagery on anxiety, depression and self-esteem in primiparas (first time mothers). The results showed that the experimental group had less anxiety and depression and greater self-esteem than did the control group at the end of the period. He found positive correlation between self-esteem, anxiety and depression. Thus relaxation therapy has been found fruitful in the treatment of depression and it decreases the level of depression; increases self-esteem and maintains pulse rate, blood-pressure, skin-temperature, emotions etc.

Wood et al, (1996) studied the effect of cognitive behavioral intervention and relaxation training on depression patients. Murphy et al, (1995) also examined the relaxation response of the depressive cases with cognitive behavioral therapy and tricyclic antidepressant. The outcome for tricyclic antidepressant was worse than that for cognitive behavior therapy.

Taylor and Mc lean (1993) worked on effect of relaxation in the treatment of unipolar depression and got significant positive changes.

Haudin et al, (1993) examined the influenced of relaxation training on the immunological and psychological status (including anxiety and
depression) of bereaved spouses and got positive result in the level of psychological disorders.

Braden and Pennington (1993) also got significant positive effects by testing the relaxation response on depression.

Vines (1994) successfully used relaxation with guided imagery and controlled acute pain, emotional distress and depression in chronically ill population.

Foa (1997) examined the effect of deep muscle relaxation on women suffering from trauma and got positive remedial response.

Spiegel et al. (1997) studies have evaluated highly specific guided visualizations, rather than general relaxation. For example, it has been suggested that a systematic program of imagining microscopic soldiers shooting down one’s cancer cells can improve the chances of surviving cancer. Unfortunately, despite much enthusiasm shown by some patients and practitioners, there is still no meaningful evidence to support this appealing idea at present. Nonetheless, there is some evidence from a set of small trials that specific immune-oriented visualizations can provide enhanced protection against herpes flare-ups and winter colds (Gruzelier et al., 2002).

Omlor et al. (2000) suggests that the use of visualizations prior to surgery cannot only reduce the need for pain medications; it can also help prevent hematomas (collections of blood under the skin). However, more study would be needed to verify this somewhat difficult-to-believe result.

Pawlow et al. (2003), found that muscle relaxation exercise significantly reduced stress, anxiety and salivary cartisol in the adults
suffering from night eating syndrome. The patients attended two laboratory sessions one week apart. The result indicated that 20 min of a muscle relaxation exercise reduced the disorders significantly, immediately post session. After practicing these exercise daily for a week, subject exhibited lowered stress, anxiety, fatigue, anger and depression on 8. APRT (Abbreviated Progressive Relaxation Therapy) was also associated with significantly higher am (in the morning) and lower pm (in the evening) ratings of hunger and a trend of both more breakfast and less night time eating.

A more easily accepted study found that either relaxation therapy or aerobic exercise can improve symptoms of fatigue after cancer surgery, and that each approach is about as effective as the other (Dimeo et.al, 2004).

Conrad and Roth (2006) stated that muscle relaxation therapy (MRT) has continued to play an important role in the modern treatment of anxiety disorders. The original progressive MRT (JPMRT) has been found to be effective in Panic Disorder (PD) and generalized anxiety disorder (GAD). This review describes the most common MRT techniques, summarizes recent evidence of their effectiveness in treating anxiety and explains their rational and physiological bases.

Ansgar and Walton (2007) have published a review on muscle relaxation therapy for anxiety disorders. This review describes the most common MRT (muscles relaxation techniques), summarizes recent evidence of their effectiveness in treating anxiety and explains their rationale and psychological bases.
Smith *et.al*, (2007) compared yoga and relaxation therapy in reducing stress and anxiety. He found both the therapies effective in reducing stress, anxiety and improving health status. Yoga was more effective than relaxation in improving mental health.

Lang *et.al*, (2008) found that cancer patients exposed to empathetic care along with self-hypnotic relaxation experienced significantly less pain and anxiety during an uncomfortable, invasive procedure than similar patients receiving only empathetic or usual care. These interesting results suggest that pain under these circumstances is more effectively relieved when the patient relies on his or her own self-coping abilities rather than someone else’s kindness.

Manzoni *et.al*, (2008) presented a review with meta-analysis regarding the relaxation training for anxiety. The results showed consistent and significant efficacy of relaxation training in reducing anxiety. This meta-analysis extends the existing literature through facilitation of a better understanding of the variability and clinical significance of anxiety improvement subsequent to relaxation training.

Scott *et.al*, (2008) studies have also investigated the benefits of relaxation therapies on patients with HIV. A careful review of 35 randomized trials found that relaxation therapies may be generally helpful at improving the quality of life of HIV-positive patients and in reducing their anxiety, depression, stress, and fatigue. These interventions, though, had no significant effect on the growth of the virus, nor did they influence immunologic or hormonal activity. Subsequently, however, Creswell *et.al*, (2008) study involving 48 HIV patients found that mindfulness meditation—a popular method for
inducing the relaxation response—slowed the loss of the specific immune cells destroyed by the virus, though more research needs to be done to confirm this result.

A careful review of 20 trials found psychological interventions such as cognitive behavioral therapy, biofeedback, relaxation and coping were associated with reduced chronic headache or migraine pain in 589 children as compared to sham (placebo), standard therapies, waiting list control or other active treatments (Eccleston et.al., 2009).

Singh et.al, (2009), compared effectiveness of music and progressive muscle relaxation (PMR) therapies for controlling the anxiety in COPD (chronic obstructive pulmonary disease) subjects. They selected the COPD subjects which had recent episodes of exacerbation. They found that Music and PMR both were effective in reducing anxiety and dysnoea. However Music was found superior to PMR.

Researchers in Taiwan have also studied the role of relaxing music in reducing cancer pain. One hundred and twenty-six hospitalized patients were randomly selected to listen to music for 30 minutes and take pain medication or just take the medication. Patients were given the choice of folk songs, Buddhist hymns (Taiwanese music), plus harp, or piano (American). The group who listened to music experienced significantly more pain relief compared to the group that did not (Huang et.al, 2010).

Kim and Terry (2011) studied the effects of a gentle yoga program on sleep, mood and blood pressure in older women with Restless Legs Syndrome (RLS). Participants were drawn from a larger trial regarding
the effects of yoga on cardiovascular disease risk profiles in overweight, sedentary postmenopausal women. 75 women were randomized to receive either an 8-week yoga (n=38) or educational film program (n=37). All 75 participants completed an RLS screening questionnaire. The 20 women who met all four diagnostic criteria for RLS (n=10 yoga, 10 film group) comprised the population for this nested study. The yoga group demonstrated significantly greater improvements than controls in multiple domains of sleep quality and mood, and significantly greater reductions in insomnia prevalence, anxiety, perceived stress, and blood pressure (all P’s ≤ 0.05). These preliminary findings suggest yoga may offer an effective intervention for improving sleep, mood, perceived stress, and blood pressure in older women with RLS.

Vancampfort et al., (2011), examined the efficacy of a single progressive muscle relaxation therapy on state anxiety, psychological stress, fatigue and subjective well-being in patients of schizophrenia. The results showed decreased state anxiety, psychological stress, fatigue and increased subjective well-being.

Bali (2012) presented a review article on Yoga Nidra and its therapeutic application. The man today frequently faces a new epidemic of stress-related disorders caused by his inability to adapt to the highly competitive pace of modern life. Psychosomatic illness, such as diabetes, hypertension, obesity, thyroid disorders, migraine, asthma, ulcers, digestive and skin disorders are said to arise from the tensions of body and mind. The leading causes of death in developed countries like cancer and heart disease also stem for tension. Yoga Nidra deals the problems of tension with a wide periscope. In Yoga, relaxation from tension is one of the chief concerns and thus by the practice of Yoga Nidra, the nature of
mind can be changed, diseases can be cured and the creative genius can also be restored.

Kim et.al, (2013) found that mind-body practices through yoga, taichi, qigong, mindfulness-based stress-reduction, meditation and deep breathing are increasingly employed in the treatment of PTSD. They found numerous therapeutic effects on stress responses, including reductions in anxiety, depression and anger. Also, they found increases in pain-tolerance, self-esteem, energy levels, ability to relax and ability to cope with stressful situations. The treatment works on intrusive memories, avoidance and emotional arousal.

Camila and Bernard (2014) evaluated the effects of yoga-program alone and in combination with Cognitive Behavioral Therapy in reducing the symptoms of panic disorder. Statistical analysis showed significant reduction in anxiety levels associated with panic disorder. However, the combination of yoga and CBT showed even further reductions in all observed parameters (mean values). This study observed significant improvement in panic symptoms by following the practice of yoga and the combination of yoga and psychotherapy both.

Krupinska and Kulmatycki (2014) presented a systematic review of 30 years work on effectiveness of Progressive Muscle Relaxation (PMR) in alleviating psychophysiological disorders. The review states that contemporary medicine requires holistic approach to the patient. Conventional methods are supplemented with additional activities as becoming popular relaxation, both physical and mental, which may be identified with progressive muscle relaxation according to Jacobson. PMR is one of the alternative and holistic methods, supporting the
mitigation of various psychophysical disorders. It is used both in the field of cardiology, neurology, oncology and respiratory diseases, psychiatry and pain management.

Joy et al., (2014) stated that social anxiety is common among adolescents and many modifiable factors related adolescent and many teachers are associated with it. Appropriate interventions in an early time may help them to reduce it.

Ranjita and Sarada (2014), studied stress management by JMMRT. 35 patients diagnosed with GAD (as defined by the standardized diagnostic criteria of DSM-IV TR of American Psychiatric Association) were subjected to modified JPMRT for a total of 10 sessions every day. EEG, PR and BP were recorded and Hamilton rating scale for anxiety (HRSA) was taken before the beginning and the end of therapy. Statistical analysis was done using ANOVA-single factor. Results showed a significant reduction in EEG frequency, PR, SBP and subjective HRSA scale. However no significant reduction in DBP was observed. The study confirmed that it could prove as valid treatment option for anxiety and depression related disorders.

Rhodes (2015) described the experiences of practicing yoga and its role within processes of healing for adult women with complex trauma histories. Using a hermeneutic phenomenological method, data were analyzed from interviews with 39 women. Results showed that the core meaning of participant’s experience of healing through yoga is claiming peaceful embodiment. This is an ongoing process occurring on a continuum where by women experienced improved connections with and sense of ownership and control over their bodies, emotions and thoughts
and a greater sense of well-being, calmness and wholeness in their bodies and minds.

Yunping et.al, (2015) has explored the effects of progressive muscle relaxation (PMR) on anxiety, depression and quality of life (QOL) in patients with pulmonary arterial hypertension (PAH). After 12 weeks intervention, the PMR group showed significant improvement in anxiety, depression, overall QOL. The mental component summary score of QOL was $P < 0.05$. In contrast, the control group showed no significant improvement in any of the variables. This study suggests that PMR practice is effective in improving anxiety, depression and mental health components of QOL in parents with PAH.

**Yoga nidra as a therapeutic tool for anxiety management**

The modern society (with increased population, multidimensional developments) has made the human life very fast hectic and demanding. The present life-style of human beings demands adjustment on the part of the individual. Each of us, according to our coping resources, tries to adjust in this changing world. Some adjust by becoming over active and others by withdrawing from the situation. When we fail to make a proper adjustment according to the demand of the situation, a state of anxiety develops in our personality, which gives mind a psychological problem. Therefore it is necessary to find some effective management tool for anxiety management. Yoga nidra, as a therapy, not only provides relaxation to the body and mind but also has a number of other benefits.

According to Megha Deuskar and Usha Ram, (2002); psychological stress adversely affects the functioning of the human
immune system. Yoga nidra may enhance the capacity of immune system in wording off diseases.

Brown and Gerbarg (2005) stated that yogic breathing is a unique method for balancing the autonomic nervous system and influencing psychology and stress related disorders. The part I of this series presented a neurophysiologic theory of the effects of Sudarshan Kriya Yoga (SKY). Part II reviewed clinical studies, their own clinical observations and guidelines for the safe and effective use of yoga breath techniques in a wide range of clinical conditions. Although more clinical studies are needed to document the benefits of programs that combine pranayama (yogic breathing asanas and yoga postures) and meditation, there is sufficient evidence to consider SKY to be beneficial, low-risk, low-cost adjunct to the treatment of stress, anxiety, post-traumatic stress disorder (PTSD), depression, stress-related medical illness, substance abuse and rehabilitation of criminal offenders. SKY has been used as a public health intervention to alleviate PTSD in survivors of mass disasters. Yoga techniques enhance well-being, mood, attention, mental focus and stress tolerance. Proper training by a skilled teacher and a 30-minutes practice every day will maximize the benefits.

Kirkwood et al., (2005); has given a systematic review of the research evidence on the effectiveness of yoga for the treatment of anxiety and anxiety disorders. He reviewed eight studies and all were reported positive results. According to them yoga is effective in treating anxiety or anxiety disorders in general. However, there are encouraging results particularly with obsessive compulsive disorder.
Kumar (2005) studied the effect of yoga nidra on hyper tension and others psychological co-relates. Forty people, suffering with mild hypertension were considered for the study. Out of 40, thirty were male businessmen and ten were house-wives. A positive significant result was obtained, which showed that systolic and diastolic blood-pressure was positively decreased. In addition pulse-rate, respiration-rate, stress, anger and fear were also significantly controlled. However there was no significant change in the depression level.

Kumar (2006) found improvement of physical and mental health as a result of practicing yoga nidra. He examined the effect of yoga nidra on Alpha, E.E.G. and G.S.R. of college students. He found a significant change as yoga nidra positively increased the alpha EEG and GSR of the subjects.

According to Acharya (1995), yoga nidra can be understood as scientific sleep. It is a total practice of yoga itself. The practices of shithilasana, shav-asana, shoonya-awastha and Samadhi are of great importance in conditioning the body and mind, which are the different stages of yoga-nidra.

M.J. Cooper (1979), observed the effect of yoga-nidra in cardiac patients. At the University of Tel Aviv (Israel) he observed that yoga-nidra significantly lowered levels of serum cholesterol in cardiac patients.

Bali (1979) found a reduction in blood-pressure and anxiety level in hypertension patients as a result of the practice of yoga-nidra.
Kumar (2004) made a study on higher class students for six months and concluded that practice of yoga-nidra reduces the stress and anxiety as well as improves the General Well Being.

Mangalteertham (1998) proved through a series of study that yoga nidra is a technique in which one can after the states of consciousness from beta to alpha and then to delta. Therefore subject enjoys the different states of consciousness knowingly. It is a ‘pratyahar’ but also opens the door for meditation.

Bhushan (2001) stated that the technique of yoga-nidra has preventive, promotive and curative value. It prevents stress and stress-related disorders by inducing deep physical-emotional and mental relaxation by training the mind to remain calm and quiet and by rooting out the repressed desires and thoughts from the deeper realms of the mind. As a promotive science, yoga nidra awakens the inherent creative and promotes the learning and memory abilities of the practitioner.

Prajapati and Tiwari (2006) studied the effect of various shodhan kriyas, asanas, pranayam and yoga nidra on serum glucose level. Results showed that the yogic practices have positive effect on the patients of NIDDM (non insulin dependent diabetes mellitus) in other words they found reduction in serum glucose level in fasting as well as post-prandial.

Gupta et.al, (2006) studied the effect of yoga based life style intervention on state and trait anxiety. He found that in the subjects the state and trait anxiety were significantly reduced. Among the diseased subjects significant improvement was observed in the anxiety levels of patients of hypertension, coronary artery disease, obesity, cervical
spondylitis and those with psychiatry disorders. The result was concluded on the basis of anxiety scores with in a period of 10 days.

Kirkwood et.al, (2005) reviewed research evidences on the effectiveness of yoga for the treatment of anxiety and anxiety disorders. Eight studies were reviewed. They got encouraging results particularly with obsessive compulsive disorder.

Singh and Kumar (2007) found that in the present life style persons adjust their demands according to their efficiency. When they fail to make a proper adjustment according to the demands of the situation, a state of negative stress (distress) develops in their personality which gives psychological problems. Yoga nidra as provides relaxation to the body and mind but also have a number of benefits.

Kumar (2008) worked on effect of yoga nidra on stress, anxiety on college going students. 80 students were taken from PG yoga classes as well as 30 were in control group. The result showed a significant change in practice group as yoga nidra positively decreased the stress level of the subjects. Several other studies proved that yoga nidra equally influences anxiety level significantly in both male and female subjects.

Amita et.al, (2009) examined effect of YN on blood glucose level in diabetic patients. They divided 41 patients in to two groups- 20 and 21. The first group was given Yoga Nidra where as the second group was not. After 3 months, most of the symptoms were subsided in first group (P<0.004, significant) and fall of mean glucose level was significant after three months of Yoga Nidra.
Bonura and Pargman (2009) investigated the effect of chair yoga versus walking and chair aerobics on psychological health in older adult men and women. He found that yoga participants experienced the most benefits over the course of the intervention.

Kauts and Sharma (2009) conducted a study on ‘effect of Yoga on academic performance in relation to stress’. 159 high stress adolescent students and 142 low-stress adolescent students were selected from 800 adolescent students, on the basis of scores obtained through stress battery. Experimental group of students was given a yoga module consisting of yoga asanas, pranayama, meditation and a value orientation program for 7 weeks in addition to teaching the academic subjects, whereas the control group of students was taught the subjects alone. The results showed that the students, who practiced yoga, performed better in academics. The study further showed that low-stress students performed better than high-stress students, meaning thereby that stress affects the student’s performance.

Kumar (2009) found out the effect of yogic practices on student’s physiology. 40 students (18-25 years age groups) were selected for the study. A package of yoga nidra practice and pranakshan pranayam was given for 40 days. The effects, studied on the alpha EEG and GSR level, showed a significant change. He concluded that practice of yoga helps to improve the immunity of the students.

Pramanik, et.al, (2009) conducted a study on ‘Immediate effect of slow-pace Bhashrika pranayama on blood pressure and heart rate’. The objective of this study was to evaluate the immediate effect of slow-pace Bhashrika pranayama (respiratory rate 6/min) for 5 min. on heart rate and
blood pressure, and the effect of the same breathing exercise for the same
duration of the time (5 min.) following oral intake of hyoscine-N-butyl
bromide (buscopan), a parasympathetic blocker drug. During the practice
the subject was requested to imagine the open blue sky. Slow-pace
Bhastrika pranayama showed a strong tendency to improve the
autonomic nervous system through enhanced activation of the
parasympathetic system.

Rubia (2009) experienced positive changes on body and brain
physiology and for clinical effectiveness in disorders of psychiatry by
meditation. The aim of meditation was reduce or eliminate irrelevant
thought process through training of internalized attention, thought to lead
to physical and mental relaxation, stress reduction, psycho-emotional
stability and enhanced concentration. Physiological evidence showed a
reduction with meditation of related autonomic and endocrine measures
while neuro-imagine studies demonstrated the functional up regulation of
brain regions of affect regulation and attention control. Clinical studies
showed some evidence for the effectiveness of meditation in disorders of
affect, anxiety and attention. The combined evidence from
neurobiological and clinical studies seemed promising.

Anuja (2011) studied the effect of yoga nidra on anxiety. She
selected 30 female students (20-25 age groups). Daily practice time of
yoga-nidra was 30 minutes and the duration was one month. One group
pretest-post test design was used for the research and t-test was applied
for statistical analysis. The results showed that significant changes in the
anxiety levels of individual subjects and also practicing yoga nidra
decreased the level of anxiety.
Eastman *et.al*, (2013) stated that there is evidence that yoga practice is associated with decreased stress, worry and depression, and with improved mindfulness based skills. 66 students (18-56 y age groups) were selected for the study. They concluded that iRest yoga nidra practice may reduce symptoms of perceived stress, worry and depression and increase mindfulness-based skills.

**Cognitive restructuring**

Cognitive restructuring is a particular form of cognitive therapy in which the goals are to first teach clients to identify and evaluate automatic thoughts (the actual words or images that go through a person’s mind at the most superficial level of cognition) that lead to distress and/or dysfunctional behaviours. Dysfunctional core beliefs and assumptions are also identified. Core beliefs are deeply held beliefs that we have about ourselves and the world around us. Through the treatment process, clients are guided to discuss problems that are the most distressing and recurrent and to first evaluate and modify their automatic thoughts. Once these evaluations are identified, the therapist may then help the patient gather evidence for and against these evaluations. This process is called cognitive restructuring.

Cognitive restructuring is a part of cognitive therapy which gained acceptance and become well-known during 1980s-1990s.

Paul *et.al*, (1985) made a comparative evaluation of cognitive and behavioral intervention related to social phobia. They compared exposure *in vivo* rational emotive therapy and self-instructional training. Through each of the three therapeutic procedures resulted in significant
decrements in anxiety in the post-test after six treatment sessions, exposure in-vivo was superior to the cognitive treatments.

Richard et.al, (1989) studied exposure and cognitive restructuring for Social Phobia on 43 social phobic. They divided social phobic into three groups- some assigned to exposure (EXP), some to cognitive restructuring without exposure (CR alone) and to some an intervention combining these two techniques (COMB). Within group analyses showed that the COMB and CR-alone groups improved significantly in all variables, where as the EXP group showed changes on phobia but not attitudinal measures. The relative ability of treatment-induced changes in fear of negative evaluation (FNE), locus of control and irrational beliefs to predict long-term improvement was assessed. Changes in these variables were predictive of improvement. The change in DNE accounted for the majority of the explained variance.

Taylor et.al, (1997) stated that cognitive restructuring (CR) requires the person to think about and discuss feared social events with his/her therapist and thus entails some degree of exposure to social stimuli. CR is commonly used to treat Social Phobia. It is also thought to enhance the efficacy of therapeutic exposure exercises (EXP). Four predictions were tested based on this model: Relative to a control intervention matched for the exposure inherent in CR, CR is more effective in reducing Social Phobia, reducing negative social cognitions, increasing positive cognitions and enhancing the effects of subsequent EXP.

Jeffery et.al, (1998) studied the relative efficacy of cognitive restructuring and interceptive exposure procedures for the treatment of
panic disorder as well as the differential effects of the order of these interventions. Questionnaire measures and independent clinician rating were used to assess outcome. Participants experienced greater benefit from cognitive therapy.

Winnie et al. (2001) presented an article in which they briefly described cognitive behavioral treatments for social anxiety disorder (also known as social phobia). In this article they evaluated the effectiveness of CBT (cognitive behavior treatments) and discussed the characteristics of patients which may influence response to treatment.

Gordon and Murray (2002) demonstrated with the help of cognitive psychology par diagram that anxiety disorder patients selectively attended to threatening material that is specifically related to their particular disorder. They found that when attention was allocated in the spatial location of a stimulus cue, patients with social phobia responded faster to probes that followed social threat cues than probes following either neutral cues or physical threat cues. This effect was not observed among control subjects. The results supported the selectively process threat was that are social-evaluative in nature.

Tames (2002) studied the effect of Cognitive Behavioral Treatment on social phobia. According to him Social Phobia can be a chronic disorder, capable of restricting a client’s social and occupational functioning. He started the therapy in the line- establishment of a sound therapeutic alliance, a focus on assessment, diagnostic interviewing and education regarding anxiety symptoms and their treatment. Second, the therapist helps clients to develop competence in social skills, relaxation training and cognitive restructuring. Third, therapy uses exposure to
social situations in order to help clients confront their fears and refine their coping skills. Fourth, relapse prevention strategies are used to help clients learn to tolerate feelings of discomfort and confront challenging social interaction. This line of treatment can be adapted to the specific needs of different clients.

Marom and Hermesh (2003) presented a review in which he mentioned CBT as a leading evidence-based psychotherapy. The review describes briefly the major components of CBT: exposure, reduction of safety behaviors, attention focus modification and cognitive restructuring. Specific CBT strategies suited for the main anxiety disorders are reported (specific phobia, panic disorder and agoraphobia, social phobia, generalized anxiety disorder, obsessive compulsive disorder and post-traumatic stress disorder). The review emphasizes the efficiency of the use of CBT as a psychotherapeutic method in anxiety disorders.

Robert et.al, (2006) conducted a meta-analysis using all available controlled treatment outcome studies of cognitive behavioral and pharmacological treatments for social phobia. Both were significantly different from zero and the difference between them was not significant. Cognitive behavioral treatment exposure interventions yielded the largest effect size (ES) whether alone or combined with cognitive restructuring.

Raul et.al, (2006) are of the opinion that anxiety disorders are relatively common in childhood. Studies employing cognitive behavioral therapy (CBT) in adults suffering from this group of illness have laid the ground work for their application in youths. This article delineates the principle components of CBT along with recent advances in its uses.
Pachana et al., (2007) examined the effect of treatment on specific phobia with a middle and older aged sample and studied the efficacy of exposure therapy, in combination with other cognitive behavioral therapy. In the experiment the treatment group was compared with a control group. The results indicated that the severity of specific phobia was significantly declined in the treatment group.

Shoenfelt and Weston (2007) found that OCD in children and adolescents is much the same as in adults with regard to symptoms and basic treatment modalities. They supported that the treatments of OCD include both medications and cognitive behavioural therapy. They presented, through case examples, samples of verifying the psychotherapeutic approach used for both child and adolescent cases of OCD, in their article. They focused on exposure and response prevention technique.

Epp et al., (2009) reviewed applications of individual cognitive-behavioral therapy to individual cognitive-behavioral therapy to specific psychiatric disorder. They have discussed efficacy verses effectiveness, efficacy of individual cognitive behavioral therapy on anxiety disorders, panic disorder (with or without Agoraphobia) and social phobia, in this review. According to them “Exposure therapies alone and in combination with cognitive restructuring have been found to be equally efficacious in the treatment of social phobia (Feske and Chambless, 1995; Gould et al., 1997). In addition, Gould et al., (1997) found Exposure therapies alone and in combination with cognitive – restructuring alone”. In this review Fedoroff and Taylor (2001) concluded that although Exposure Therapy demonstrated the largest treatment effects at most treatment compare
with cognitive therapy alone or Exposure plus cognitive therapy, these effects were not significantly different from zero.

Priyamvada et.al, (2009) stated that Cognitive Behavioral Therapy is probably the well known and the most practiced form of modern psychotherapy and has been integrated into highly structured package for the treatment of the patients suffering from Social Phobia. They presented a case study of a 27-year-old, unmarried Christian man suffering from Social Phobia, after providing therapeutic intervention program. The patient was treated by using cognitive behavioral techniques. After 17 sessions of therapeutic intervention program, significant improvement was found. The patient was under follow-up for a period of 6 months and recovered to the premorbid level of functioning.

Marks et.al, (1998) made treatment of post traumatic stress disorder by prolonged exposure and cognitive restructuring. They concluded that both prolonged exposure and cognitive restructuring were each therapeutic on their own, were not mutually enhancing when combined, and were each superior to relaxation.

Debra et.al, (2010) used cognitive behavioral group therapy (CBGT) for social anxiety disorder (social phobia). The therapy is to challenge irrational automatic thoughts and create exposures to provide disconfirming evidence for these irrational thoughts as well as habituation to fearful stimuli. Their study analyzed the semantic content of automatic thoughts reported in CBGT and found that the most common thoughts related to poor social performance, negative labels by others, and the anticipation of negative outcomes in feared situations. Principle components analyses indicated the automatic thoughts reflected
three underlying themes: Experiencing anxiety, negative self-evaluation and fear of negative evaluation.

Jessica et.al, (2011) recommended clinical practice guide-lines for the treatment of PTSD. These guidelines come from different federal agencies, professional organization and countries. The guide lines unanimously recommend cognitive behavioural therapies as the most effective treatment for PTSD. The cognitive behavioural treatments include a number of components viz. psycho-education, anxiety management, exposure and cognitive restructuring. Exposure and cognitive restructuring are thought to be the most effective components.

Nowakowski et.al, (2013) stated that specific phobias are the most prevalent anxiety disorder. According to them exposure-based treatments have been identified as highly effective treatments for specific phobia. In the chapter ‘Specific Phobia’ of their book they provided a brief overview of the phenomenology, etiology and maintenance of specific phobia, followed by a more thorough discussion of the assessment and treatment of specific phobia. The chapter emphasizes exposure-based treatments for specific phobias, highlighting the process of developing an exposure hierarchy, the characteristics of successful practices and strategies for maximizing home work compliance. Other treatment approaches are also reviewed. The chapter concludes with a case example illustrating the assessment and treatment of a patient with a specific phobia of elevators.

Dastnaee et.al, (2015) experimented training cognitive restructuring and muscle relaxation techniques on anxiety, depression and dysfunctional attitudes in obsessive patients. The subjects were
selected from Razi, Psychiatric center in Tehran, which were treated after the diagnosis of Obsession disorder based on the diagnostic criteria of the disease. The study had an experimental design (pre test- post test control group). Results showed that restructuring method which is concerned with changing thoughts and beliefs of the depressed individuals could reduce individual’s anxiety and increased their concentration. Results also showed that muscle relaxation training was more effective on anxiety and dysfunctional attitudes of the patient and cognitive restructuring training was more effective on patients of anxiety and depression.

Sassano- Higgins et al (2015) consider CBT with exposure and response prevention is one of the most effective treatments available for OCD. This treatment avoids side-effects that are common to management of symptoms with psychotropic medication and has the added benefit of reducing the risk for relapse once medication is discontinued. Development of a treatment plan involves identification and ranking of stimuli that provoke obsessions, exposure to these stimuli while preventing compulsion through various technique, and use of cognitive restructuring. The family of the OCD patient plays a significant role in treatment. The family’s accommodation and emotional response to a patient’s obsessions and compulsions may interfere with therapy and perpetuate symptoms. The same consideration applies to OCD in the pediatric population. However, the form of obsessions and compulsions differs according to age, and therapeutic techniques are modified to make them developmentally appropriate.
The ‘Review of Literature’ provided an idea to think over a research problem for study, which is given in the next chapter, ‘The Plan of The Study’.