CHAPTER II

REVIEW OF LITERATURE

This chapter consists of various research studies relevant to the study under investigation. A search for the reference materials would assist the investigator to determine the effectiveness of the various combinations of the variables, methodology used and the results obtained. The study of the related literature comprises loading, reading and evaluating reports of research as well as reports of casual observation and opinion that are related to the individuals planned research report. A study of relevant literature is an essential step to get a full picture of what has been done with regard to the problem under study. The investigator has made an attempt to bring a brief review of research related to the present study to form the background for the present study.

Farah M Shroff et al. (2017) focused on the need for effective population mental health promotion approaches which is urgent as mental health concerns are escalating globally and current allopathic treatment regimens are insufficient to bring people towards the state of mental well-being (citation). Successfully alleviating stress has the potential to promote wellbeing and prevent illness. Worldwide, yoga is gaining popularity as an accessible, acceptable and cost-effective practice for mind and body. People are turning to yoga for mental health improvement because of preferences for: self-treatment as opposed to clinical intervention; perceived greater efficacy than medication; fewer side effects; lack of response to medication. Yoga has minimal side effects and is cost-effective in comparison to pharmacological treatments and psychotherapy. Yoga’s added benefit is that it improves physical fitness and encourages self-reliance. The author provided the evidence for yoga as a form of mental health promotion, illness prevention, and treatment for depression.
Narendra Kumar Arya et al. (2017) in their study focused on the impact of five days spiritual practice in Himalayan Ashram of Sahaj Marg on well-being related parameters and selected physiological indicators with 55 participants (25 male, 30 female; age range 18-65 years; mean age = 49 years & SD = 12.5 years). The results of the self-report measures suggested that there was improvement after practice in Mental Health Continuum-Short Form (MHC-SF) and its dimensions like Emotional and Social well-being; Factors of Scale of Positive and Negative Experience (SPANE) like SPANE-P (Positive), SPANE-N (Negative) and SPANE-B (Balance), Sat-Chit-Ananda, Depression Anxiety and Stress Scale’s (DASS)-Depression, Anxiety, Stress and DASS-Total had significant change towards improved well-being. However, MHC-SF-Psychological well-being, Flourishing Scale (FS) and Mindful Attention Awareness Scale (MAAS) did not show significant impact. Observations during the Semi-structured interview corroborated with the results.

Kritika Jain et al. (2016) in their study focused on meditation and other stress-reduction techniques have been studied as possible treatments for depression and anxiety. One such practice, yoga, has received less attention in the medical literature, though it has become increasingly popular in recent decades. Among all the yoga practices Sudarshan Kriya Yoga (SKY) has been found to be very effective. SKY has four breathing components Three stage – slow Ujjayi, Bhashrika, Om chanting, Sudarshan Kriya (cyclic rhythmic breathing). SKY is a unique breathing process, which removes stress from the body. Negative toxins are flushed out and each cell is flooded with new life to energize body and mind. This experience of centeredness, freedom and fulfillment releases neuropeptides, which influence the immune system positively and hence, the whole
physiology. It demonstrated a 68-73% success rate in treating people suffering from depression, regardless of severity of the depression, also produced highly beneficial biological effects on brain and hormone function. The P300 ERP EEG brainwave pattern and NREM brainwave pattern, which measure electrical brainwave activity and are abnormal in many depressed people, returned to the normal range by ninety days. Plasma prolactin, a hormone in the blood which is believed to be a key factor in producing relief from depression, increased after the very first SK&P session. Levels of plasma cortisol (the stress hormone) decreased significantly. It is proclaimed to have various psychological effects, for example- when introduced in prisons (Prison Smart Program) showed significant reduction in violent behavior, overall reduction in anxiety, anger insomnia, depression, stress, fighting tendency and also improved overall quality of life. Indicating the physiological effects of SKY includes reduction in lactate levels, release of anti-oxidants, overall increase in brain activity, increased immunity (specifically NK cells-mainly in cancer patients) The effects on molecular level showed that SKY can induce changes in gene expression also.

Rachel Hanson (2016) conducted an exhaustive review of the research that has been performed on using yoga or yoga therapy to alleviate symptoms of depression and anxiety disorders. The review focused on how yoga is being used to address symptoms of depression and anxiety and the extent to which these ways are effective. Findings from this review was helpful to determine areas of further study and implications for clinical social work practice.

Vijaya M.N (2016) in his paper concentrated in the area Man is the ultimate result of the evolution of God. He is gifted with the sixth sense to understand the Self, Society,
and Nature. Though man is being handled by the greatest powers of God, he is unable to live a happy and full-fledged life. Man is facing many problems physically, mentally, socially, and spiritually. There is confusion in all the fields of life. A permanent solution is required for all men either educated or uneducated. The article dealt with Vethathiri Maharishi’s Simplified Kundalini Yoga (SKY Yoga) as a solution for the existing problems in the society. The article helps in understanding the greatness of Simplified Kundalini Yoga and try to implement in their life, which will result in a prosperous life without harming others.

Ashish Sahu et al. (2015) in their study focused on Stress, result of acute demand of enhanced performance throughout the work period in this highly competitive world. Stress causes a variety of physiological changes in the human body namely hypertension, angina, insomnia, impotency, etc... The practice of meditation may offer a way to relieve that stress. Meditation has a number of positive effects on physiology of human body. The Raja Yoga meditation, a technique of mediation, has showed very effective results on vital health parameters. This paper presented a comprehensive review of various meditation techniques, practice of Rajyoga meditation and its effects on various health parameters.

Kiran et al. (2014) found that the Chronic Tension-Type Headache (CTTH) is the most common type of headache with no truly effective treatment. This study was designed to correlate the additive effect of meditation on CTTH patients receiving medical treatment. 50 patients (aged 18-58 years) presenting with a clinical diagnosis of CCTH, were divided in 2 groups. Group 1 (n=30) received 8 lessons and practical demonstration of Brahma kumaris spiritual based meditation known as Rajyoga meditation for relaxation therapy, in addition to routine medical treatment (analgesics and muscle relaxants). Group 2 (n=20)
patients received analgesics and muscle relaxants twice a day but no relaxation therapy in the form of meditation. Both groups were followed up for 8 weeks period. The parameters studied were severity, frequency, and duration of CCTH, and their headache index calculated. Patients in both groups showed a highly significant reduction in headache variables (P<0.001) after 8 weeks. But the percentage of patients showing highly significant relief in severity of headache, duration & frequency in Group 1 was 94%, 91%, and 97%, respectively whereas in Group 2 it was 36%, 36%, and 49%, respectively. Headache relief as calculated by headache index was 99% in Group 1 as compared to 51% in Group 2. Even Short term spiritual based relaxation therapy (Rajayoga meditation) was highly effective in causing earlier relief in chronic tension headache as measured by headache parameter.

Kiran et al. (2014) Suggested that their practice of meditation might offer a way to relieve stress. This study was designed to determine the effectiveness of a group stress reduction program based on Rajyoga meditation for patients with anxiety and depression. The study was conducted on 100 patients suffering from anxiety and depression who were on similar drug regime. They were randomised into two groups; Meditators (n=50; age 34.12±9.05 years) and controls (n=50 age 33.68±10.78 years). The meditators were taught Rajyoga meditation and practiced for 20 min/day, 7 d/week for 6 weeks. The control group did not practice any type of meditation. Results were assessed by using Hamilton anxiety and depression scales. The patient with anxiety and depression symptoms in intervention group and control group showed significant improvement following six weeks of intervention as suggested by significant reduction in scores of HAM-A (p<0.001) and HAMD (p<0.001). However, the percentage of relief was more in intervention group as
compared to the control group. Their study concluded that the short-term, yoga-based lifestyle intervention may significantly reduce anxiety and depression and improve subjective well-being and personality.

Ramesh M.G. et al. (2013) investigated whether BKRM enhances positive thinking and essential to attain higher levels of self-satisfaction and happiness in life. This study is a cross-sectional comparative study which was done between Rajayoga meditators and non-meditators. This study was conducted at BKRM Centres at Manipal and Udupi in Karnataka, India. Fifty subjects were selected for this study, which included those practising BKRM in their normal routine life (n=25) and non-meditators (n=25) who were aged 42.95+/15.29 years. Self-reported Oxford Happiness Questionnaire (OHQ) was administered to all subjects and their happiness scores and status were assessed and compared. Items related to self-satisfaction in life were selected from the OHQ and compared between meditators and non-meditators. Participants completed self-reported OHQ, from which data of happiness status and self-satisfaction in relation to meditation duration and frequency were analyzed by descriptive statistics and test of hypothesis. BKRM helps in significantly increasing self-satisfaction and happiness in life by enhancing positive thinking. Irrespective of age and years of short-term or long-term meditation practice, enhanced positive thinking increases self-satisfaction and happiness in life.

Kauts et al. (2012) assessed the effect of yoga module on Concentration and Memory. The study started with 800 adolescent students, 159 high stress students, and 142 low-stress students were selected on the basis of scores obtained through Stress Battery. Experimental group and control group were given pre-test to assess their concentration as well as short term memory. A yoga module consisting of yoga asanas, pranayama,
meditation, prayer and a value orientation programme was administered on experimental group for 7 weeks. The experimental and control groups were post-tested for their performance in concentration and memory tests. The results show that the students, who practiced yoga module yielded higher concentration levels and exhibited better short term.

Nilesh Gajjar (2012) conducted a study to observe the effect of Yoga exercises on Academic Achievement, Verbal Reasoning ability, and Short-Term Memory (STM) of the students of commerce stream, thus this entire study is depended on Experimental Method. Among this Experimental Method, a complete experimental simple equivalent group pre test-post test experiment design was applied for data assortments, to examine the effect of Yoga on Academic achievement, Reasoning ability and Short term Memory of the students of commerce stream. In this way, total 40-40 students were selected from two schools and “ simple equivalent group pre test-post test experiment design”, The entire study is based on three tools (i.e. (1) Academic Achievement test (2) Verbal Reasoning ability test and (3) Short Term Memory (STM) test.

Daphne M. Davis et al. (2011) in their research suggested that mindfulness practices offer psychotherapists a way to positively affect aspects of therapy that account for successful treatment. This paper provided psychotherapists with a synthesis of the empirically supported advantages of mindfulness. Definitions of mindfulness and evidence-based interpersonal, affective, and intrapersonal benefits of mindfulness are presented. Research on therapists who meditate and client outcomes of therapists who meditate were reviewed. Implications for practice, research, and training were discussed.

Praveena et al. (2011) studied the effect of yogic pranayama and meditation on selected physical and physiological variables. Thirty boys in the age group of 12 to
15 years were selected from Karnataka university department of yoga, Dharwad. The subjects were divided into two groups namely control group and Experimental group. The Experimental group was given yogic pranayama and meditation for a period of twelve weeks both morning and evening on alternative days in a week. The control group did not participate in yogic pranayama and meditation training programmer. The collected data were statistically analyzed by using analysis of covariance (ANCOVA). The experiment group had a significant improvement on the selected physical and physiological variables except systolic and diastolic blood pressure than that of control group.

Avalle et al. (2010) conducted a study with the purpose of the Effects of selected yogic exercise and psychological skill training on selected psycho physiological and psychomotor variables of high- level participants. To achieve the purpose of the present study, forty five intercollegiate level players from Maruthi College of Physical Education, Coimbatore were selected as subjects at random and their ages ranged from 18 to 24 years. The subjects were divided into three equal groups. The variables selected were cognitive anxiety, self confidence, heart rate, systolic blood pressure, diastolic blood pressure and body temperature as psycho-physiological variables and reaction time, and hand eye co-ordination as psychomotor variables. The study was formulated as a true random group design, consisting of a pre – test and post test. The subjects (n=45) were randomly assigned to three equal groups of fifteen men students each. The groups were assigned as Psychological Skills Training (PST), Yogic Exercises (YE) and control Group (CG) in an equivalent manner. The psychological skills training group and yogic exercises group participated for a period of twelve weeks and the post tests were conducted. Analysis of covariance statistical technique was used to test the adjusted mean difference among the
three groups. When the adjusted post – test was significant, the Scheffe post hoc test was used to find out the paired mean differences. By analysis of covariance, the cognitive anxiety was significant at 0.05 levels with F ratio of 9.66 as the table F ratio was 3.23 for adjusted means. By analysis of covariance the self confidence was significant at 0.05 level with a ratio of 29.78 as the table F ratio was 3.23 for adjusted means. By analysis of covariance the heart rate was significant at 0.05 level with an F ration of 1.85 as the table F ratio was 3.23 for adjusted means. By analysis of covariance, the systolic blood pressure was insignificant at 0.05 level with F ratio of 0.96 as the table F ratio was 3.23 for adjusted mean. By analysis of covariance the hand eye co-ordination was significant at 0.05 levels with F ratio of 1032.81 as the table F ratio was 3.23 for adjusted means. By analysis of covariance the reaction time was significant at 0.05 levels with F of 13.76 as the table F ratio 3.23 for adjusted means by analysis of covariance the body temperature was insignificant at 0.05 levels with F ratio of 1.28 an the table F ratio was 3.23 for adjusted means. The findings of the study showed that there was significant differences in the cognitive anxiety, somatic anxiety, self confidence, and heart rate due to influence of yogic exercises and psychological skills training. In case of diastolic blood pressure, systolic blood pressure and body temperature there was insignificant differences due to yogic exercises and psychological skills training. The findings of the study showed that there was a significant difference in the hand eye co – ordination and reaction time due to influence of yogic exercises and psychological skills training. The findings of the study showed that there was significant difference in the self confidence and hand eye coordination between the yogic exercises and psychological skills training group.
Sharma (2010) conducted study with the purpose to measure the hip and back flexion as well as extension of the hamstring muscles of the legs yoga innervations. Experiment used Sit and reach box with measuring scale. The subject sat on the mat; both legs were extended forward and touch the box. The measuring scale was placed in between both the legs. The zero end of the measuring scale was placed as proximal end. The subject bent forward and extended both hands forward. The zero point of the measuring scale was placed to the tip of the box. The subjects slowly stretched forward, the hip, back and arm. The maximum distance reached was recorded with the help of measuring scale in Centimeter. The best of three trials was recorded as final score in centimeter. Within the limitations of the study the following conclusion were drawn. From the above findings, it was concluded that the level of Flexibility is increased significantly due to six week training of yogic practices, physical exercises and combination of both (yogic practices and physical exercises). It is concluded form the results that the level of Flexibility is increased by yogic practices and physical exercises both. There is no significant difference in yogic practices and physical exercises. It is concluded form the results that the level of Flexibility is increased by combined activities is greater than the yogic practices. It is concluded from the results that the level of flexibility is increased by combined activities is greater than the physical exercises. This study revealed that all types of training groups increase Flexibility.

Surekha D. Kaundinya et al. (2010) focused a voluminous amount of research on the multi-faceted complex process of meditation now available. Meditation [Dhyan], an ancient Indian art and science of healing, has an immense potential to liberate the mankind from the Stress Associated Diseases [SADs] which, today, are addressed as Noninfectious Chronic Diseases [NCDs]. But unfortunately the Conclusion from the
currently available research are tentative because of the several errors in the study design. The guidelines suggested in the research article is useful in futuristic research which may bring the dream of trans-personal Psychologists to combine “Eastern Consciousness approach” with the “Western Precisely scientific tackling”. When that happens, it shall bring a better tomorrow in the present Health scenario.

**Benavides et al. *(2009)* conducted study in the University of Texas, America to observe the effect of astanga yoga on children and adolescent for weight management and psychological well being. The objective of the pilot study was to determine the effect of yoga on weight in the youth at risk for developing type 2 diabetes. Secondarily, the impact of participation in yoga and self concept and psychiatric symptoms was measured. A 12 week prospective pilot astanga yoga programme 20 children and adolescents. Weight was measured before and after the programme. All participants completed self concept, anxiety and depression inventories at the initiation and completion of the programme. 14 predominately Hispanic children, ages 8-15, completed the programme. The average weight loss was 2 kg., weight decreased from 61.2 ±20.2 to 59.2 ±19.2kg (P=0.01). Four of five children with low self esteem improved, though two had decreases in self esteem. Anxiety system improved in the study.

**Dina (2009)** conducted a study on Analysis of the Effect of Yoga on Selective Attention and Mental Concentration in Young Adults. Despite an increase in interest pertaining to the benefits of yoga practice, research focusing on the relationship between yoga practice and attention is limited. This study employed a quasi-experimental pre-test, post-test design to measure whether physical activity had an immediate effect on selective attention and mental concentration in young adults, aged 18 to 25. More specifically,
this study compared yoga and aerobic exercise classes to assess whether yoga practice improved attention beyond aerobic activity. The yoga and aerobic groups completed two surveys and the d2 Test of Attention at two observation points: immediately prior to and immediately following participation in their respective classes. An analysis of variance (ANOVA) found a statistically significant improvement between pre- and post-test scores on attention for both groups, with a greater improvement for the aerobic group. The findings showed that physical activity had an immediate effect on the attention of the sample.

**Ganguly S.K (2009)** believed that Yogic practices are psychophysical because their effects are both on body and mind. Asanas can be called as postural pattern. Maharshi Patanjali has given one or two sutras about Asanas. It is indicated that Asanas are psychophysical. Asana is postural pattern, which is stable and comfortable. It can be rather said that Asanas create stability and Sukha. Asanas bring stability, feeling of well being and lightness/suppleness. Developments of all Asanas are not from Patanjali. After Asanas, practice of Pranayama is suggested which requires sitting stable for a long time. These Asanas are not available in Physical Exercise programme or even in "sports. Since yoga is believed to be a technique that facilitates deeper psychological introspection and bring about lasting behavioural changes, it the author assessed some of these changes in scientific manner.

**Javanbakth et al. (2009)** evaluated the influence of yoga in relieving symptoms of depression and anxiety in women, who were referred to yoga clinic. The study involved a convenience sample of women who were referred to yoga clinic from July 2006 to July 2007. All new cases were evaluated on admission using a personnel information questionnaire as Beck and Spiel Berger tests. Participants were randomly assigned into the experimental and a control group. The experimental group (N=34) participated in twice
weekly yoga classes of 90 minute duration for two months. The control group (N=31) was assigned to a waiting list and did not receive yoga. Both groups were evaluated again after the two month study period. The average prevalence of depression in the experimental group pre and post yoga intervention was 12.82+7.9 and 10.79+6.04, respectively, a statistically insignificant decrease (P=0.13). However when the experimental group was compared to the control group, women who participated in yoga classes showed a significant decrease in state anxiety (P=0.03) and trait anxiety (P<0.001). Participation in two month yoga class can lead to significant reduction in perceived level of anxiety in women who suffer from anxiety disorders. This study suggests that yoga can be considered as a complementary therapy or an alternative method for medical therapy in the treatment of anxiety disorders.

Pailoor et al. (2009) conducted a study to observe the effect of two yoga-based relaxation techniques on memory scores and state anxiety. A yoga practice involving cycles of yoga postures and supine rest (called cyclic meditation) was previously shown to improve performance in attention tasks more than relaxation in the corpse posture (shavasana). This was ascribed to reduced anxiety, though this was not assessed. In fifty-seven male volunteers (group average age ± S.D., 26.6 ± 4.5 years) the immediate effect of two yoga relaxation techniques was studied on memory and state anxiety. All participants were assessed before and after (i) Cyclic Meditation (CM) practiced for 22:30 minutes one day and (ii) an equal duration of Supine rest (SR) or the corpse posture (shavasana), on another day. Sections of the Wechsler Memory Scale (WMS) were used to assess; (i) attention and concentration (digit span forward and backward), and (ii) associate learning. State anxiety was assessed using Spielberger's State-Trait Anxiety Inventory (STAI). There was a
significant improvement in the scores of all sections of the WMS studied after both CM and SR, but, the magnitude of change was more after CM compared to after SR. The state anxiety scores decreased after both CM and SR, with a greater magnitude of decrease after CM. There was no correlation between percentage change in memory scores and state anxiety for either session. A cyclical combination of yoga postures and supine rest in CM improved memory scores immediately after the practice and decreased state anxiety in a classical yoga relaxation posture (shavasana).

Richard Musselwhite (2009) presented an ethnographically-informed portrait of the organizational boundaries that give the Brahma Kumaris their institutional structure and managerial culture. The Brahma Kumaris are a Hindu new religious movement from India that began in 1936 and now claims more than half a million members worldwide. The fieldwork informing this dissertation took place between July 1999 and December 2003 at two primary sites, including a Brahma Kumaris center in a major metropolitan center in the Southern United States and the Brahma Kumaris’ world headquarters in Mount Abu, Rajasthan, India. The Brahma Kumaris aspire to serve the world as a model of good management and effective leadership, and to this end, they have constructed organizational boundaries, status hierarchies, and managerial practices that support their esoteric, service-oriented religion by emphasizing the importance of well-managed personal relationships within and beyond their institution’s boundaries.

Tamasin Ramsay (2009) Conducted an ethnographic study of the Brahma Kumaris World Spiritual University (Brahma Kumaris). The present time in which humanity is living is the time when the lowest and highest points of human and environmental history converge, and is known as the age of confluence or Sangamyuga.
It culminates in liberation, peace and happiness for all souls, and restoration for the world.

The thesis explored the ways in which BKs respond to environmental disasters and acts of war, as well as threats to physical and spiritual purity. BKs say that it is purity that will restore balance, value and peace. The work analyzed how BKs’ focus on purity influences the ways in which they manage traumatic circumstances, and the ways that they discuss those circumstances and engage in acts of care. Ultimately the study argues that BKs live with daily tensions that may make them a potentially valuable and calming, non-proselytizing resource for the broader community during disasters.

**Pilkingon (2008)** experimented Yoga base intervention to be an attractive option for the treatment of depression. The aim of this study was to systematically review the research evidence on the effectiveness of yoga for this indication. Searches of a major biomedical data leases including MIDLINE, EMBASE, CINAHL psycho INFO and the Cochrane library were conducted. Specialist Complementary and Alternative Medicine (CAM) and the Ind MED databases were also searched and efforts were made to identify unpublished and ongoing research. Relevant research was categorized by study type and appraised. Clinical commentaries were obtained for studies reporting Clinical outcomes. Five randomized control trail were located, each of which utilized different forms of yoga intervention and in which the severity of the condition ranged from mild to severe, all trails reported positive findings but methodological details such as method of randomization compliance and attrition rates were missing. No adverse effects were reported with the expectation of fatigue and breathlessness in participants in one study.

**Muthukumar L (2007)** conducted study with the objective to find out the effect of yogic practices on the development of physical fitness skills among the mentally retarded
boys. Sixty mentally retarded boys’ subjects for this study were selected from CSI mentally retarded school, Sivakasi. Randomly and divided into two groups as control group and experimental group. Experimental group was involved in Yogic Practices programme for six weeks and the subjects in control group were not engaged in any physical activity during this yogic practices period. The collected data were statistically analyzed by using analysis of covariance (ANCOVA). Experimental group had a significant improvement for the effect of yogic practices on the development of physical fitness skills among the mentally retarded boys than the control group. Sixty mentally retarded boys ranging from the intelligence quotient of forty five to fifty five percent and with fourteen to sixteen year of age were randomly selected as subjects. The following design was used to estimate the effect of yogic practices on the development of physical fitness skills of the mentally retarded boys. They were divided into two groups. Group 'A' (thirty mentally retarded subjects) and group “B” (thirty mentally retarded subjects). The groups were designated as group 'A' control group and group 'B' Experimental group. The control group was not subjected to any treatment during experimental period whereas experimental group was subjected to the experimental treatment during the period of experiment, experimental group was given yogic practices daily for a period of six weeks, excluding Sunday. The training was given for one hour in the evening for all the days. For the present study the experimental measure was constituted with the following three variables. The following statistical procedure was observed to estimate the effect of yogic practices on the development of physical fitness skills of the mentally retarded boys. In this study, two groups (Control and experimental groups) were taken. Since the two groups were unequaled and also the selected variables were more than one, analysis of covariance
(ANCOVA) was used. When the groups were two, application of post-hoc test was not necessary. Since the obtained 'F' value 9.035 was higher than the tale value 4.02, the result becomes significant and the hypothesis was accepted. Experimental group had a significant improvement in the effect of yogic practices on the development of physical fitness skills among the mentally retarded boys than the control group.

Oak J.P. (2006) evaluated a 30-day yoga programme, followed by monthly follow-ups for the subsequent six months on obese Indian. Residential Yoga Group (RYG) showing a consistently, though statistically not-significant, decreasing trend in all the four factors of anxiety, enunciated in IPAT’s A.S.Q Test. Non-residential Yoga Group (NRYG), Aerobic Group (AG) and Control Group (CG) have shown consistently high scores denoting the trait of apprehension. All the four groups have shown a normal-range score in factor C (emotional instability), L (suspiciousness) and Q3 (low self control) hinting at absence of neurotic tendencies in Indian obese. The study is indicative of ample scope for long term Interventions of yoga in rehabilitation programmes for the obese, in general and for the Indian obese, in particular.

Preetha O (2006) conducted a study to find out the effect of selected yogasanas and aerobic exercises on selected physical, physiological and psychological variables among women students of Pondicherry University. Samples were selected randomly aged between 20 to 25 years and was divided into equally three groups Control and two experimental groups. Experimental group I underwent aerobic exercises, experimental group II underwent yogasana practice, both group the training session were held five days in a week for a period of twelve weeks. Control group did not undergo any training. Prior to and at the end of training period all subject were tested for selected physical, physiological, and psychological
variables. Aerobic exercises and yoga practice group showed significant improvement on selected physical, physiological and psychological variables like weight, flexibility, and balance among experimental group than the control group.

**Trisha Lamb (2006)** his study focused on EEG spectral power and coherence estimates in the individually defined delta, theta, alpha-1, alpha-2, and alpha-3 bands were used to identify and characterize brain regions involved in meditative states, in which focused internalized attention gives rise to emotionally positive "blissful" experience. Blissful state was accompanied by increased anterior frontal and midline theta synchronization as well as enhanced theta long-distant connectivity between prefrontal and posterior association cortex with distinct "center of gravity" in the left prefrontal region (AF3 site). Subjective scores of emotional experience significantly correlated with theta, whereas scores of internalized attention with both theta and alpha lower synchronization. The results proved selective associations of theta and alpha oscillating networks activity with states of internalized attention and positive emotional experience.

**Cowen et al. (2005)** conducted a study with twenty-six healthy adults age 20-58 (Mean 31.8) who participated in six weeks of either astanga yoga or hatha yoga class. Significant improvements at follow-up were 'noted for all participants in diastolic blood pressure, upper body and trunk dynamic muscular strength and endurance, flexibility, perceived stress, and health perception. The improvements offered for each group when compared to baseline assessments. The astanga yoga group had decreased diastolic blood pressure and perceived stress, and increased upper body and trunk dynamic muscular strength and endurance, flexibility, and health perception. Improvements for the hatha yoga
group were significant only for trunk dynamic muscular strength and endurance and flexibility. The findings suggested that the fitness benefits of yoga practice differ by style.

Brown et al. (2005) found Yogic breathing a unique method for balancing the autonomic nervous system and influencing psychological and stress-related disorders. 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 observation and guidelines for the safe and effective use of yoga breathing techniques in a wide range of clinical conditions. The authors avow that although more clinical studies are needed to document the benefits of programs that combine pranayama (yogic breathing) asanas (yoga postures), and meditation, there is sufficient evidence to consider Sudarshan Kriya Yoga to be a beneficial, low risk, low-cost adjunct to the treatment of stress, anxiety, Post-Traumatic Stress Disorder (PTSD), depression, stress-related medical illnesses, substance abuse, and rehabilitation of criminal offenders. SKY has been used as a public health intervention to alleviated PTSD in survivors of mass disasters. Yoga techniques enhance wellbeing, mood, attention, mental focus, and stress tolerance. Proper training by a skilled teacher and a 30-minute practice every day will maximize the benefits. Health care providers play a crucial role in encouraging patients to maintain their yoga practices.

Madanmohan (2005) undertook a comparative study of the effect of short term (three weeks) training in savitri (slow breathing) and bhaстраika (fast breathing) pranayama on respiratory pressures and endurance, reaction time, blood pressure, heart rate, rate pressure product and double product. Thirty student volunteers were divided into two groups of fifteen each. Group I was given training in savitri pranayama that involves slow, rhythmic, and deep breathing. Group II was given training in bhaстраika pranayama, which
is bellows type rapid and deep breathing. Parameters were measured before and after
three-week training period. Savitri pranayama produced a significant increase in respiratory
pressures and respiratory endurance. In both the groups, there was an appreciable but
statistically insignificant shortening of reaction time. Heart rate, rate-pressure product and
double product decreased in savitri pranayama group but increased significantly in
bhastrika group. It is concluded that different types of pranayama produce different
physiological responses in normal young volunteers.

Sharma et al. (2004) conducted a study on attitude of an individual is the way of
thinking and perception about around us. It is resultant of our belief, knowledge, daily
practice and social environment. An individual’s attitude keeps him/her very happy in any
situation. This study examined the effect of yogic training on the attitude of school going
students. 30 Male subjects age ranging between 10 to 16 years was selected by stratified
random sampling technique form Ramjas Sec. School NO. 5, Karol Bagh, New Delhi,
section of samples has been delimited to the age group 14 to 16 yrs. Boys studying in
Ramjas Sr. Sec. School O. 5, Karol Bagh, New Delhi A Psychological test namely
(Sodhi’s Attitude Scales) has been applied to measure the attitude of the students. The test
included (i) Attitude towards teachers and parents (ii) Attitude towards discipline,
(iii) Attitude towards life and humanity, (iv) Attitude towards country. (v) Attitude towards
religion. 63e test has 10 to 20 items, which has been responded by the students as Yes or
No, by making a circle on it. The result of the study showed that most of the subjects
(80% subject) improved their Attitude towards teachers and parents, most of the subjects
(70% subject) improved their Attitude towards Discipline, most of the subjects
(90% subject) improved their Attitude towards Life and Humanity, most of the subjects
(80% subject) improved their Attitude towards Country, and most of the subject 
(90% subject) improved their Attitude towards Religion.

West J (2004) conducted the experiment with the aim of examining some of the 
psychological and neuroendocrine response to these activities. Sixty-nine healthy college 
students participated in one of three 90-min classes: African dance (n = 21), Hatha yoga 
(n= 18), or a biology lecture as a control session (n = 30). Before and after each condition 
participants completed the Perceived Stress Scale (PSS), completed the Positive Affect and 
Negative Affect Schedule, and provided a saliva sample for cortisol. There were significant 
reductions in PSS and negative affect (ps < .0001) and Time x Treatment interactions 
(ps <.0001) such that African dance and Hatha yoga showed significant declines, whereas 
there was no significant change in biology lecture. There was a significant main effect for 
salivary cortisol (p < .05) and a significant interaction effect (p < .0001) such that cortical 
increased in African dance, decreased in Hatha yoga, and did not change in biology. Changes 
in cortisol were not significantly related to changes in psychological variables across 
treatments. Both African dance and Hatha yoga reduced perceived stress and negative effect. 
Cortisol increased in African dance and decreased in Hatha yoga. Therefore, even when these 
interventions produce similar positive psychological effects, the effects may be very different 
on physiological stress processes. One factor that may have particular salience is that amount 
of physiological arousal produced by the intervention.

Ghosh (2003) conducted a study with Sixty subjects, age ranged from 13- 15 years, 
who were randomly divided into four groups of equal number: physical exercise group, 
yogic practice group, combined group and a control group. The experimental groups 
underwent twelve weeks treatment programme. Both pre- test and post- test were made for
the collection of data. The data collection was made on the selected physiological variables, namely, pulse rate, respiratory rate, breath holding time, and mean arterial pressure. The results of Analysis of Covariance (ANCOVA) followed by the Scheffe's test showed significant decrease in all the groups except control group. Between combined group and yoga group, physical exercise group and yoga group- a significant difference in paired adjusted final mean is seen. But there was no significant difference in pulse rate in combined group when compared to the physical exercise group. Physical exercises and yogic practices are essential in promoting a balanced physical and mental state in human being. This is because of the various physiological systems in our body such as nervous system, circulatory system; glandular system, muscular system etc. become slowly conditioned to maintain harmony with each other by these practices which ultimately lead to the stability of the body and mind. An attempt is made in this study to have a searching inquiry by way of comparing the effects of physical exercise, yogic practice independently and also combined on selected physiological variables in case of high school boys. Further, it was aimed to find out which of the experimental factors was comparatively more effective. The study was conducted on a total of sixty randomly selected boys of Utkal University High School, Vanivihar, Bhubaneswar. They were divided into four groups of equal number at random. Their age was ranging from 13 to 15 years. The design of the groups was Group -A: Combined group i.e. boys practicing both exercises and yoga Group - B: Physical exercise group i.e. boys practicing physical exercise alone. Group - C: Yogic practice group i.e. boys only practicing yoga. Group- D: Control group i.e. boys who have not undergone any of the above treatments. The physiological variables were Pulse rate, Respiratory rate, Breath holding time, and mean arterial pressure. The experimental group
A, B and C were given treatment 45 minutes daily for five days in a week for a period of twelve weeks, and group D was not exposed to any treatment. They consisted of 12 selected free hand exercises. Padmasana, yogamudra, paschimottanasaana, ardhamatsyendrasana, bhujangasana, halasana, shalabhasana, dhanurasana, viparitakarani, martsyasana, halasana, shalabhasana, dhanurasana, viparitakarani, martsyasana, chakrasana (side), shavasana, kapalabhati kriya, nadi sodhana pranayana and meditation. Data have been analyzed by using ANCOVA which was followed by Scheff's post-hoc test. The four groups were compared for the difference in the measure of selected physiological variables namely- pulse rate, respiratory rate, breath holding time and mean arterial pressure in relation to pre-test and post-test scores. The analysis of pulse rate data revealed that the combined group, physical exercise group, and yogic practice group had caused significant decrease in the pulse rate as compared with the control group. The analysis of pulse rate was due to the fact that physical exercises, yogic practices and the combined practices increases the stroke volume and the cardiac output, hence causing greater efficiency in cardiac muscles, with less stress on the heart. The reduction of pulse rate was more in yoga group due to the fact that all the above phenomena have occurred due to yogic practices alone. In addition to them the metabolic process was reduced here as a result of passive stretching and practice. Moreover, the expenditure of energy is less, which demands less oxygen and causes heart to have a less of strain. This might have also been the cause of lower pulse rate in comparison to other groups, because heart rate is directly proportional to the metabolic rate. So lower metabolism means, lower rate which also indicates the lower pulse rate. The analysis of respiratory rate data reveals that the practice done by combined group, physical exercise group and yogic practice group had caused significant decrease in the
respiratory rate when compared with the control group. The results also indicated that the difference between the paired adjusted final mean of combined group and yogic practice group, and physical exercise group and Yogic practice group were significant and there was no significant difference between combined group and physical exercise group. The reduction of respiratory rate was due to the fact that combined practices, physical exercises and yogic practices had caused an increase in the size of lungs, stretch of the alveoli and improvement upon the efficiency in intercostals muscles. Hence an increased efficiency in lungs, which now bear less strain, might have been the causal factor in lowering the respiratory rate. Within the limitation imposed by the experimental conditions, the following conclusions were drawn. By administering the physical exercises, yogic practices and the combination of physical exercises and yogic practices, reduction in the pulse rate, and respiratory rate were noticed and breath holding time was found increased. Physical exercises and yogic practices and the combination of physical exercises and yogic practices did not bring about any change in mean arterial pressure. The yogic practice group had undergone reduction in pulse rate and respiratory rate in more degree than that of physical exercise group and combined group. The breath holding time in yogic practice group increased more than that of physical exercise group and combined group. The breath holding time in combined group increased more than that of physical exercise group and combined group. The breath holding time in combined group increased more than that of physical exercise group.

**Geetha Dalal (2002)** revealed emotion is a motive power, which helps in evolution. In yogic terminology, emotion is a Rajas guna of Prakriti, which exists in everyone. Excitement or upsurge of emotion is responsible for many types of disease. Psycho
physiologically, emotions act upon our body through hypothalamus, which controls ANS and the endocrine systems. Negative emotions like anger, fear, greed, jealousy give rise to somatic illness where on the other hand positive emotions like love, compassion, friendship, affection etc. give the strength to combat the stress. Illness due to negative emotions includes hyper acidity, hypertension, insomnia, menstrual disturbances, loss of appetite etc. Daily yoga sadhana of eight-fold path with a proper balanced diet helps one to act against stressful threshold situations by increasing the threshold of tolerance. The beauty of yoga therapy is that it treats the individual as a whole. An observation was made on 287 sadhakas (male=133 and female=154). Their financial condition, family background and environment were noted. Different symptoms of the subjects were tabulated and studied for every 2 months with the help of physical checkup and psychological testing with different questionnaires related to anxiety, depression, positive and negative outlook towards life. All the findings were again tabulated in details. The variables stated above were tested before and after the programmes viz., Pratipakshabhavana, Anityabhavana and Sakshibhavana respectively. These practices were done daily for a period of 2 months. The favourable results suggested that Yoga leads to Samadhi, kaivalya, eternal bliss, which aim to maintain physical fitness, mental stability, emotional quietness and spiritual elevation.

James et al. (2002) studied that yoga has become increasingly popular in Western cultures as a means of exercise and fitness training; however, it is still depicted as trendy as evidenced by an April 2001 Time magazine cover story on "The Power of Yoga." There is a need to have yoga better recognized by the health care community as a complement to conventional medical care. Over the last 10 years, a growing number of research studies
have shown that the practice of Hatha Yoga can improve strength and flexibility, and may help control such physiological variables as blood pressure, respiration and heart rate, and metabolic rate to improve overall exercise capacity. The review presented a summary of medically substantiated information about the health benefits of yoga for healthy people and for people compromised by musculoskeletal and cardiopulmonary disease.

**Schell (1994)** conducted a study on physiological and psychological effects of Hatha-Yoga exercise in healthy women. They measured heart rate, blood pressure, the hormones cortisol, prolactin and growth hormones and certain psychological parameters in a yoga practicing group and a control group of young female volunteers prior and after the experimental period. There were no substantial differences between the groups concerning endocrine parameters and blood pressure. The heart rate was significantly different in yoga group having a significant decrease in heart rate during the yoga practice. In the personality inventory the yoga group showed markedly higher scores in life satisfaction and lower scores in excitability, aggressiveness, openness, emotionality and somatic complaints. Significant differences could also be observed concerning coping stress and mood at the end of the experiment. The yoga group had significant higher scores in high spirits and extra variedness.

Every human strive to find solutions for good mental and physical health. From the analysis of the literature, it is found that many researchers has been conducted to provide solutions to mankind for a better life. **SKY yoga and Raja yoga** has been studied individually but no study has been conducted comparing SKY yoga and Raja yoga. So, the present research works attempts to compare both these yogas. The analysis and recommendations of the study work would be helpful to humans to live in harmony and peace.
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