Chapter – II
CHAPTER II

REVIEW OF RELATED LITERATURE

More recently, Yoga has been acknowledged as a better curative agent for all the physical, mental, emotional, intellectual, spiritual and social ailments. Instead of the modern day’s medical therapy people prefer to tread this natural and significant path towards the goal of sound health of all the above six types. Yoga is a technique ideally suited to prevent physical and mental illnesses and to protect the body as a whole and developing the sense of self- assurance and self- reliance. Thwarted and warped man of present day goes on condemning the chaotic order of the things. The crippled have no option than to criticize the upright, people in this tragic condition work out their own frustration and imbalance on others.

Yoga technique as a therapy is gaining popularity at a rapid speed and the institutions providing this therapy are emphasizing more on the physical aspects of Yoga but there is a need to understand the virtual and wholesome significance of yoga and to learn method of yoga as a treatment. The tenacity and calmness comes with the quiet, consistent breathing and the stretching in various yoga postures for minutes at a time.

Some efforts have been put to study the effect of Yoga and Meditation practices on physical and mental health.

A brief review of related studies is as below:

- Physiological effects and Yoga and Meditation practices.
- Psychological effects and Yoga and Meditation practices.
- Psychological and Physiological effects and Yoga and Meditation practices.
- Jail inmates and various studies.

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2.1 Physiological effects and Yoga and Meditation practices.

Efforts are made to study the effect of certain Asanas, Surya- Namaskar, Pranayamas (breathing exercises) etc. on physical health viz. in enhancing trunk and spine flexibility, in providing rest to heart etc.

Pannu (1965) found in his research that Surya Namaskar (one of the most comprehensive yoga exercise) rejuvenates the whole body. This study is connected more on the physical plane but if done, associated with prana (breath) it helps to increase the level of concentration tremendously.

Virk, Joginder Singh (1971) conducted the study to see the effect of the yogasanas on the Trunk Flexibility. He laid his view by saying that some particular yoga exercises involve forward and backward bending of the spine, which increase the flexibility of the spinal region.

Sikand, Amarjeet Singh (1971) while studying the effects of breathing exercises on the vital capacity reached this conclusion that Pranayama is beneficial to the patients of asthma, tuberculosis or other types of lungs’ infections as it helps to increase the total voluminous capacity by improving the breathing habits.

Udupa et. al. (1977) in their study on two groups of volunteers who practiced vipassana meditation for 10 days, had noted a significant increase in the levels of actyl-choline, choline- sterase, catecholamines and histamines activities in the blood. On the other hand, there appeared to be a reduction in the level of plasma cortisol, urinary corticoids and urinary nitrogen. These findings suggest that volunteers were neuro-physiologically more active following yoga meditation and yet, were physically and metabolically stable. However, rather than functional disturbances, where some structural changes have taken place, yoga practices can be used for pollination along with routine medical procedures.

Mall, N.N. (1982) while trying to explain the cardio-vascular responses of active, passive and yoga-recovery postures maintains that the yoga recovery postures like Shavasana, Makarasana etc. give rest to the heart and save energy in the body for maximum work output.

Certain studies given below also reveal that Yoga practices and Meditation are beneficial for the patients suffering from Asthma, High Blood Pressure, Epilepsy etc.
Rai, V.C. (1989) Head of the Department of Physiology in a well-known Delhi Medical College accomplished a pioneering work with a technique of meditation called Sahaj Yoga. He himself had suffered serious angina attacks and was surprised to find that this technique of meditation seemed to alleviate his medical condition.

Rai set up a multifaceted research project. Part of this was a study of the effect of Sahaj Yoga Meditation on chronic illnesses such as epilepsy and asthma. Rai’s research team found that regular practice of this technique reduced the frequency, severity and duration of his patients' epileptic seizures, for example. Moreover, when Rai taught another group of mimicking exercise, which resembled but was actually not the real technique, the same improvement did not occur.

The results that Rai’s work achieved in conditions ranging from Asthma to High Blood Pressure are very encouraging.


Sachdeva (1994) investigated the effect of 12 weeks of yogic life style on hypertension in a sample of 26 hyper-tensive and 20 normo-tensive subjects. The yogic life style comprised meditation, breathing techniques, correct postures, a low-fat, non-spicy vegetarian diet and behavioral modification. Findings revealed a much significant reduction in systolic and diastolic B.P, body weight, serum cholesterol and triglyceride levels following the implementation of the yogic life style.

Vasudevan et.al. (1994) conducted a study to examine the effect of Yoga and Meditation on tension headache. A group of seven subjects with tension headache underwent 30 sessions of yoga & meditation. Single group design with multiple assessments was used viz; pre-assessment, mid-assessment and post-assessment were made using psycho-physiological and physcho-behavioral measures. Findings reveal that there was no statistically significant reduction in the frontalis muscle tension and skin conductance, although clinically there was a decline. Reduction in pain perception was statistically significant. Yoga and Meditation practices were reported to be effective in reducing the frequency of tension headache.
Bhamgara (1997) stated that "Meditation is of far greater importance than medication for whatever afflicts mankind today".

2.2 Psychological effects and Yoga and Meditation practices:

Some efforts are seen in certain studies to see the effects of Yoga and Meditation practices on mental and psychological factors as below:

According to Bhole (1977), Hatha Yoga practices like Asanas (i.e. postures), Pranayamas (i.e. breathing exercises), Kriyas (i.e. cleansing processes), Mudras (i.e. certain internal attitudes) and Bandhas (i.e. neuro-muscular locks) are mostly taught as physical practices while various Meditation techniques work at the mental level, all these practices are intended to develop a certain type of awareness within oneself. This in turn is expected to bring about a change in the emotional and visceral functions and through them, a change in the intellectual and somatic functions of the individual. He classified asanas in the following three categories:

a) Meditational postures- these are helpful to realize the state of ‘unity of being’.

b) Relaxative postures- these aim to give perfect mental relaxation (chittavishranti).

c) Corrective or cultural postures- These work on muscles, ligaments, joints, vertebral column, spine, visceral organ and splenchanic areas.

Pressure changes working on various proprioceptive and interoceptive mechanisms seem to be a special contribution of these practices where most of the body musculature is kept relaxed. Both positive and negative pressure changes take place. These could influence circulation, visceral functions and feedback from visceral organs. In some of the kriyas, marked pressure changes have been observed in various internal activities. In pranayama too, pressure changes are expected to influence pulmonary circulation and various sensory mechanisms working through the respiratory system.

Datey (1977) examined the comparative effect of relaxation practices on stress. He divided 86 patients of hypertension, into three groups; Group I consisted of
persons who were not taking any anti-hypertensive drug; Group II comprised persons whose blood pressure was adequately controlled with drugs and Group III consisted of persons whose blood pressure was not adequately controlled in spite of drugs. All the three groups were taught Savasana. After practicing this asana for a period of three months, a majority of patients reported marked improvement in symptoms like headache, insomnia and nervousness. In-Group I, mean BP decreased from 134 to 107 mm of Hg. In-Group II, drug requirement was reduced by 32% and in Group III, mean BP was reduced from 120 to 110 mm of Hg and drug requirement by 29%.

In addition, 27 patients of hypertension were given biofeedback training. At the end of the training mean BP was reduced from 118 to 103 mm of Hg and drug requirement by 41%. Similar results were obtained in the case of biofeedback temperature regulation. It is important to note that savasana and/or biofeedback training reduces the reaction to mental stress and thus blood pressure in cases of hypertension automatically comes down.

Nagendra and Nagarathna (1988) have dealt with stress management in their work. According to them, the ancient Indian Science of Yoga holds the key for combating this modern menace.

Sahasi et. al. (1989) conducted a study to measure the effectiveness of yoga teachings in the management of anxiety. A group of 91 patients suffering from anxiety neurosis were taken up for treatment. Patients were randomly assigned to yoga therapy (Group I) or drug therapy (Group II), subject to their willingness to participate in the yoga practices. There were 38 patients in the former group and 53 patients were administered drug therapy. Patients were assessed clinically and administered psychological tests, prior to the commencement of the treatment schedule and also after its completion. The anxiety level in Group I decreased, the Locus of Control Scale revealed increased inner control and the Knox Cube Imitation Test scores showed increased attention/concentration though it was not statistically significant. In the drug therapy group pre and post-treatment scores were not statistically significant on any test except the Locus of Control Scale.

Stress as mentioned earlier has far reaching consequences and has pervaded all aspects of modern life. It is the cause of restlessness, social-disharmony, student-
unrest, family conflicts apart from a series of psychosomatic ailments and psychiatric
problems.

Rao, S. N. (1990) of Educational Psychology in Benaras Hindu University
conducted a study on Jnana Yoga: The way of knowledge to achieve the state of
perfectness.

Sharma, Chanchal (1994) explored the effects of selected yoga practices on
Mental Health. She found that some selected breathing and concentrating exercises
have highly positive effects on the maintenance of a sound mental health. For the
maintenance of social health of the society as a whole there is need to study the
mental phenomenons that result into crime or delinquency. Many new efforts are
being done in this direction as well.

Venkatesh et. al. (1994) conducted a study related to the effectiveness of
yogic practices. A sample of 40 adult practitioners of yoga (20 males, 20 females) and
40 adult controls (20 males, 20 females) who had no interest in Yoga practice
completed the PGI Yoga Attitude Scale, the PGI Health Questionnaire N-2, the State-
Trait Anxiety Inventory, the Presumptive Stressful Life Events Scale and the Jenkins
Activity Survey. The main findings of the study revealed the following:

Male Yoga and non – Yoga practitioners differed significantly on attitudes
towards Yoga, neuroticism, state and trait anxiety, and stressful life event during the
past year.

Significant differences among female practitioners and controls were found on
three variables namely, attitudes towards Yoga, Social desirability and stressful life
event during the past year.

Yoga practitioners had significantly higher mean scores on Yoga attitude and
social desirability as compared to Non Yoga practitioners.

Rao, P.V.K. (1995) in his paper has dealt with the scientific and psychological
significance of Yoga as a means of attaining spiritual emancipation within the yogic
fold, the author has described the nature and significance of raja yoga, hatha yoga,
kiyiyas, asanas, pranayamas, bandhas and mudras.
The Sun-Herald, Australia news report (2001), reported therapeutic success on “Children with attention deficit hyperactivity disorder”.

2.3 Psychological and Physiological effects and Yoga and Meditation practices:

Singh, R.H. and Udupa, K.N. (1977) conducted a series of comparative psychobiological studies on apparently normal educated male volunteers who had been practicing certain meditative and cultural asanas and pranayamas for an hour every day for six months. They found that six months of yoga practices induced a feeling of well being, a reduction in body weight and increased vital capacity. It was also observed that blood sugar and serum cholesterol levels on fasting were lowered, and certain endocrinal functions were accelerated. On the other hand, psychological studies revealed an improvement in memory and performance lowered mental fatigue rate, a reduction in neuroticism index, and a lowered incidence of physiological and psychological complaints assessed using the Cornell Medicai index.

Podder et al (1984), investigated a variation of yoga and meditation called savasana – meditation in a group of 32 patients of hypertension. No-thought-awareness characteristic of all meditational techniques was combined with the yogic technique of savasana to maximize physical and mental relaxation. Subjects were trained for 20 minutes in savasana – meditation for 20 days during which a regular record of their blood pressure was maintained. This was followed by 12 weeks of continued practice and the blood pressure of each subject was recorded after savasana for the entire period. A control-group of 32 subjects was also given the same treatment. Analysis of findings revealed that there was a significant reduction in blood pressure levels of the experimental group over the period of study.

The experimental group also reported significant reduction in drug dosages and enhanced ‘sense of well being’. The authors concluded that psychological stress is a major cause of essential hypertension, and that savasana-meditation, which emphasizes physical and mental relaxation, is effective in controlling blood pressure.
Sanyasi Yogasindhu (1997) conducted a research to conclude that the practice of Hath Yoga has special cleansing and balancing effects on body and mind.

Dua (1998) compared the effectiveness of various meditation procedures and concluded that the practice of meditation:

Reduced many problem behaviors or maladaptive behaviors.
Increased emotional and physical health and psychological well being.
Reduced the frequency of thoughts.
Reduced substance abuse.
Generally improved the quality of life.

2.4 Jail inmates and various studies:

Researcher could locate some studies on jail inmates:

Singh, Jasbir (1971) while studying the social adjustment of criminals in one of the Punjab Jails has concluded that consistency between individual attitudes and institutional pattern and social values is significantly related to future adjustment of the short-term convicts. It has been studied that the cordiality of relation between the individual and the institution is the most significant factor in deciding about the future adjustments of the short-term convicts. Almost all the criminals are of the type that if the jail environs benefit them then they try to shun the criminal attitudes. The individuals whose definitions are more in favor of committing crime are bound to remain maladjusted even after their release and are more likely to revert back to their criminal activities even if they perceive adjustment on health, occupation and family variables.

Almost all the individuals who perceive that they have been benefited during their stay inside the jail from new occupation and new techniques than in the old occupations do not possess attitudes in favor of committing the crime and their attitudes are also consistent with that of social values. It can be thus argued that proper utilization of the learned occupation after confinement has an important role in bringing adjustment in the future life of the convicts. Another fact that comes to the fore is that in case of these convicts whose attitudes are not consistent with that of
social values of family as an institution has also failed to act as an agency of social control. Thus jeopardizing the future adjustment of the convicts.

Swami Prakash (1984) held Meditation and Yoga camp for the criminals of Tihar Jail for stress management and concluded that this practice helps in releasing the stress.

A press report in United States on September 11th, 1994 says that since 1980, jail and prison populations have grown by 172%. There is a study right now in San Francisco, which involves therapy, counseling, educational programs and even Yoga for criminals doing hard time. The criminals are given a chance to change their lives in a constructive and positive manner and instilling self-confidence and values in them has been successful so far. In these jails the criminals are referred to as ‘clients’ instead of prisoners. A psychiatrist from Harvard has been appointed to conduct a study on these programs. It has been noted by Marcy Valenzuela, a reporter for KOVR 13 NEWS in San Francisco (1994) that while a typical jail house sees 312 fights a year, here there have been less than five fights since the program started four years ago.

This is an amazing report, showing the control of emotions fortified by these programs.

Infinity Foundation, New Jersy, and U.S.A. December 2001 sponsored Indica Wisdom on the inside: Prison. Yoga and Meditation and Spiritual Prison reform at the institute for Noetic Science in Petaluma, California were co-sponsored by the California Institute of Integral Studies and the Association for Transpersonal Psychology. It was possible to reform the jail inmates to quite some extent by offering them yoga classes.

South Indian Yoga master Sadhguru Jaggi Vasudev (2002) is conducting yoga programs in prisons in the U.S. and India. His initial contact with 67 life-term criminals grew the successful yoga programs. Mr Raj Kumar, The Jail Suprintendent of Madurai Central Prison confirmed that the prisoners had started showing tremendous transformation mentally and the disciplinary levels had improved in jail and even relatives who came to visit the prisoners were able to observe positive changes.
Paul, Manas (2003) conducted study inside the Agartala Central Jail. The hardcore criminals were being taught computer and yoga to reform them in the heart. He concluded that Microsoft and Yoga is changing the lives of jail inmates.

Although lots of work is being done on the jail inmates in order to improve their psychological state but no experimental results have been put on the table to prove the effects of yoga and meditation on the psychological variables like Self-esteem, Self-disclosure, Emotional-intelligence and Social-adjustment etc.

This made the researcher to think upon these lines that what could be the ideal kind of environment that, if provided to the criminals could prove to be the supporting factor in changing their mentality.

2.5 EMERGENCE OF THE PROBLEM:

After scanning through these studies the researcher could conclude that much efforts have been done to study the physiological effects of yoga and meditation and that yoga has been more variedly used as a therapy for physical ailments (Pannu, 1965; Sikand, Amarjeet Singh, 1971; Virk, Joginder Singh, 1971; Udupa et. al, 1977; Mall, N.N. 1982; Rai U.C, 1989; Azmailovich, A.V. 1990; Sachdeva, 1994; Vasudevan et. al, 1994).

Some of the studies also show that the effect of yoga and meditation on psychological variables have been put under study (Bhole, 1977; Datey, 1977; Nagendra and Nagarathna, 1988; Sahasi et. al, 1989; Venkatesh et. al, 1994).

Some studies have also been conducted to see the effect of yoga and meditation on psychological and physiological factors such as by Singh, R. H. and Udupa, K.N, 1977; Podder et. al, 1984; Sanyasi Yogasindhu, 1997; Dua, 1998.

These factors include some basic mental sicknesses, anxiety or hypertension etc. and also the physical factors. Only one study on the intellectual and social fitness obtained through yoga practice has been done by Bhole, 1977. The social adjustment of the jail inmates was also touched in only one study till now and that is by Singh, 70

Materialism has led human to loose his inner moral self and thus the thwarted and warped society is being led towards a chaotic state of emotional crisis. The researcher who is a Sanyasi, and is highly sensitive towards the adolescents and their problems, felt the need of dealing with the adolescent criminals in providing them with that yoga view of life, which serves as the panacea for all problems of modern world.

The researcher belongs to a Mission, which has for the last forty years been imparting yoga training to people all over the world at a massive scale. These people come from almost all walks of life viz; Indians- non-Indians, rich- poor, children, young and old. The Mission named International Brahmarshi Mission organizes yoga camps at many places within India and all over the world (Canada, North America, South America, Netherlands, England, Ireland etc.) Both at home and abroad, it has been experienced that people go back to their places much satisfied and happier after attending these yoga training camps.

It has also been variedly read in the newspapers and magazines that yoga and meditation is benefiting the mankind in many respects. The researcher herself felt, while at a yoga treatment session at the Tihar Jail in Delhi, that if a long term yoga training is provided to the delinquents and the criminals, we shall surely be successful in turning these emotionally sick people into emotionally balanced personalities. Although, the criminals have been studied for their adjustment with the institution and occupation (Singh Jasbir, 1971), but, little significant efforts have been made to provide them any holistic treatment, to bring them back into the social stream, not only as normal human beings, but, as better than normal human beings.

In the wake of absence of any worthy experimental study having been done before, the researcher has opted for conducting this particular study to see experimentally the effect of yoga, with scientific base, on some psychological variables. The research work on effect of yoga and meditation practices on psychological aspect of personality of human beings is however done on the socially
accepted individuals. The researcher felt the need of conducting an experimental study to show the results with some psychological testing on variables like self-esteem, self-disclosure, emotional-intelligence and social-adjustment. The researcher, after her own experiences of yoga treatment and after feeling the severity of the situation felt it conducive to carry on this particular study and has tried to provide yoga as a treatment to the criminals.

2.6 STATEMENT OF THE PROBLEM:

EFFECT OF YOGA AND MEDITATION PRACTICES ON SELF-ESTEEM, SELF-DISCLOSURE, EMOTIONAL-INTELLIGENCE AND SOCIAL-ADJUSTMENT OF THE CRIMINALS AT A MODEL JAIL.

2.7 OBJECTIVES OF THE STUDY:

1. To construct and standardize the Emotional-Intelligence questionnaire.
2. To study the effect of yoga and meditation practices on the Self-Esteem of the criminals.
3. To study the effect of yoga and meditation practices on the Self-Disclosure of the criminals.
4. To study the effect of yoga and meditation practices on the areas of Self-Disclosure viz; money, personality, study, body, interests, feelings-ideas, vocation and sex of the criminals.
5. To study the effect of yoga and meditation practices on the Emotional-Intelligence of the criminals.
6. To study the effect of yoga and meditation practices on the dimensions of Emotional-Intelligence viz; self-regulation, empathy, social skills, motivation and self-awareness of criminals.
7. To study the effect of yoga and meditation practices on the Social-Adjustment of the criminals.
2.8 HYPOTHESES:

The study was advanced on the basis of following hypotheses:

1. There will be no significant difference between the experimental group and the control group in the mean achievement scores of Self-Esteem.
2. There will be no significant difference between the experimental group and the control group in the mean achievement scores of Self-Disclosure.
3. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the area of money of self-disclosure.
4. There will be no significant difference between the experimental group and the control group in the mean achievement scores of area of personality of self-disclosure.
5. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the area of study of self-disclosure.
6. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the area of body of self-disclosure.
7. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the area of interests of self-disclosure.
8. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the area of feelings & ideas of self-disclosure.
9. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the area of vocation of self-disclosure.
10. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the area of sex of self-disclosure.
11. There will be no significant difference between the experimental group and the control group in the mean achievement scores of Emotional-Intelligence.
12. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the dimension of self-regulations of Emotional-Intelligence.

13. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the dimension of empathy of Emotional-Intelligence.

14. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the dimension of social-skills of Emotional-Intelligence.

15. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the dimension of motivation of Emotional-Intelligence.

16. There will be no significant difference between the experimental group and the control group in the mean achievement scores of the dimension of self-awareness of Emotional-Intelligence.

17. There will be no significant difference between the experimental group and the control group in the mean reduced scores of Social-Adjustment.

2.9 DELIMITATIONS:

- The study was delimited in the terms that training in yoga and meditation included some of the cleansing processes; Neti, Dhauti, Kapalbhati and Tratak only.
- Breathing Exercises included only the Nadi-Shodhan, Surya-Bhedan, Bhastrika, Ujjai and Bhramari pranayamas only.
- The study was delimited to eighty inmates at the Burail Jail.
- The present study was delimited with respect to variables of Self-Esteem, Self-Disclosure, Emotional-Intelligence and Social-Adjustment.
- The major delimitation of this study was that the time period of the treatment was shorter i.e. only sixty days.