CHAPTER: 2

REVIEW OF LITERATURE

A collective body of works done by earlier scientists is technically called the literature.

Reviewing of literature helps to identify the variables relevant for research, to avoid repetition, and to determine the meaning and relationship among variables (Singh. A.K, 2006)

Relevant literatures were reviewed on the following headings

2.1.Psychology in Ancient Indian Literature on Mantras

   a) Indian thought and tradition: A psycho-historical perspective

   b) Psychology in the Rig Veda &Yajur Veda mantras

2.2.Effect of Gayatri Mantra

   a)   *A study on Gayatri Mantra chanting as it influences REG (Random Event Generator)*

   b)   *Comparison of effect of Gayatri mantra and Poem Chanting on Digital Letter Substitution Task*

   c)   *Benefits of chanting the Gayatri mantra*

2.3.Studies on the Impact of Mantras

   a) Autonomic Changes during OM Meditation

   b) Autonomic Changes while Repeating Two Different Syllables- One Meaningful and   other Neutral

2.4.Personality Development Based on Indian Psychology Interventions

   a)   *Effects of Yoga Combined With Psychological Intervention on Personality among School Boys*

   b)   *Effect of Yoga on Personality in Normal High School Students*

   c)   *Effect of Integrated Approach of Yoga Module on the Personality Development of Students*

   d)   *Personality Development through Yoga Practices*

   e)   *An Integrative Model of Personality and Personal Growth*

2.5. Interventions Based on Indian Psychology That Promote Psychological Well Being among Adolescents

a) *Mano-Yoga therapy (M.Y.T.) — A clinical method*

b) *Implementation of Yoga programs in schools: Need of the hour*

c) *Integral psychotherapeutic intervention for disturbances of mind, body and vital among adolescents*

2.6. Indian Psychology Based Interventions Adopted in Other Areas of Psychological Research

a) *Improved Performance following Yoga*

b) *Yogic Breathing through a Particular Nostril Improves Spatial Memory*

2.7. Reviews Related to the Need for the Study

a) *Social information processing problems related to reactive and proactive aggression of adolescents in residential treatment*

b) *Home and School Environment as Determinants of Aggression and Self-concept of Advantaged and Disadvantaged School Children*

c) *Violence in schools*

d) *Teen violence rising*

e) *Factors that Contribute to Assaultive Behaviours in School Children*

f) *India Shaken by School Violence*

g) *Need for Early Intervention for the Prevention of Aggression and Violence in School*

h) *Influences on Authoritarian and Educational/Therapeutic Approaches to School Violence Prevention*

i) *Character Education as a Prevention Strategy for School-Related Violence*

j) *Aggressive Personality and its Development*

2.8.Reviews Related to the Rationale of the Study

a) *A comparative study of personality, mental health, and value patterns of delinquent and non- delinquent adolescent*

b) *Influence of children's personalities on interventions for aggression*

c) *Development of resilience among school children against violence*

2.1. Psychology in Ancient Indian Literature on Mantras

a) Indian thought and tradition: A psycho-historical perspective

Kiran Kumar S.K. (2011) researched on Indian thought and tradition in a psycho-historical perspective and presented the declaration by Ramanuajan that, to know about Indian Psychology, go to the pundits, the vaidyas and that India never changes under the veneer of the moderns, India still thinks like the Vedas. There was strong advocacy for indigenization of psychology in India and psychology may be made more relevant to the Indian context by reviewing into the vedic or other traditional writing. It is conventional in Indian tradition to trace all the ideas and concepts related to indigenous knowledge of the Vedas that has faithfully passed on in continuous oral tradition without much distortion. The Vedas are basically oral in nature and they are mantras produced spontaneously, not thought out. This is called 'sruti' (in Sanskrit meaning 'that which is heard'). What is implied here is that the mantras (also called rik) are known to have always existed independently in the universe and may be as patterns of sound vibrations and the sages have just perceived them acoustically. They did not compose the Vedas, but they cognized them. This way Gayatri mantra that addresses 'savitr'(Sun God) was perceived by sage Viswamitra in a particular meter termed as Gayatri chandas. Veda mantras can be adequately delved in order to understand more about the transpersonal dimension of human existence and dimension of psyche. Vedic psychology itself can exist in its own right because of its intuitive cognitive basis. According to Sri Aurobindo, from psychological point of view, the content of vedic hymns have lead to the formulations of the notions of states of consciousness and corresponding worlds (lokas). There are seven subjective principles of consciousness (sat, chit, anada, vijnana, manas, prana and anna) corresponding to seven principles of existence (satyaloka, tapoloka, janoloka, maharloka, swaraloka, bhuvarloka, bhuloka). In short, the Vedas

propounded what may be called a 'theory of psycho-cosmic correspondence'. Many Indian psychologists have already explored the concept and theory of *triguna* in *samkhya* for their potential to develop psychological typologies and have developed instruments. Along with the concepts *ahamkāra*, *buddhi* and *citta*, a comprehensive theory of motivation, personality and values can be developed.

The present researcher connotes that the translation of traditional principles of personality into conventional principles of personality mandates more scientific approach.

b) Psychology in the Rig Veda &Yajur Veda mantras

Kashyap. R.L. (2002) studied psychology in the Rig veda and Yajur veda mantras and presented that every human being has a complex inner structure of which the physical body is only one aspect, there are other aspects of being, those beyond the pale of the senses. In the modern language used by the tantriks, every human being is endowed with several bodies which are termed as subtle to distinguish them from the gross physical body. The subtle body is indicated by the word *sadana, sadma, yoni,* etc., in many verses. Each body is associated with a distinct psychological principle. There is an intimate connection between the subtle bodies associated with a human being and the various worlds of the cosmos according to the *Rig Veda*. The outermost sheath is the sheath of matter, derived from the world of matter. Next is the sheath of life-energy which deals with ambitions, emotions, higher level feelings both noble and petty goals, urge to dominate, drives, desires to possess, anger, urge for progression, the power of love, faith, sincerity, humility, aspirations, equality, peace, generosity, goodness, emotion, passion and love. The mental sheath deals with thoughts, understanding, control of senses, intelligence, reason, intuition, ability to make decisions and implement them, control of the organs of actions like speech, hands, legs etc., and the powers of meditation, contemplation and concentration. Typically in an advanced person the sheath of *prana* or the vital should be under the control of the mind. Often it is the reverse, the vital overpowers the mental and orders the power of reasoning to come up with reasons for doing the action, which may have no support of our secret inner being.

The present researcher opines that the research methodology applied for this research on Indian Psychology is more of qualitative nature to which when quantitative methods are supplemented, research finding will be more reliable and comprehensible.

2.2.Effect of Gayatri mantra

a) A study on Gayatri mantra chanting as it influences REG

Neha Racca (2013) examined how Gayatri mantra chanting influences REG (Random Event Generator - an electronic device used in the scientific study of consciousness) in contrast to Random Thinking (RT) sessions in normal males : (a) Before and after Gayatri mantra sessions,(b)before and during Gayatri mantra sessions, (c) during and post Gayatri mantra session. This study further examined, whether Gayatri mantra sessions enhance the capacity of individuals who can significantly influence the REG in comparison to random thinking. Thirty males in the age group 18 to 25 participated in Gayatri mantra chanting on the first day and random thinking sessions at the same time on the second day. The same was repeated alternatively for two more days to check the reproducibility of results. Pre, during and post sessions of Gayatri mantra and random thoughts for ten trials lasting for ten minutes each; were assessed using REG for the influence of the state of mind associated with the above sessions. The pre comparisons showed no significant difference between the two events, the pre and post session showed significant change for Gayatri mantra session, the pre and during sessions showed significant difference between both sessions. The results indicate a distinct possibility for the enhancement in the power of influencing REG in Gayatri mantra chanting session compared to random thinking session.

b) Comparison of effect of Gayatri mantra and Poem Chanting on Digit Letter Substitution Task

Balaram Pradhan and Seema Godse Derle (2012) conducted a study on Comparison of effect of Gayatri mantra and Poem chanting on Digit Letter Substitution Task (The DLST consisted of a worksheet, which has eight rows and twelve columns and randomly arranged digits in rows and columns. The subjects are asked to substitute as many target digits as possible in the specified time of ninety

seconds. The letter substitution may be undertaken in a horizontal, vertical, or randomized manner by selecting a particular digit. The total number of substitutions and wrong substitutions are scored). Sixty healthy school students (thirty boys and thirty girls) in the age group of twelve to fourteen years were recruited for the study from an English medium school in Nasik, Maharashtra. All the students were trained in GM (Gayatri mantra) and PL (Poem line) chanting for five days before the starting of the study and were assessed using digit-letter substitution task (DLST).The students were divided randomly into two groups and each group participated in both the GM and PL chanting. Fifty percent of participants performed GM chanting and remaining on the PL recitation for six days. The orders of the sessions were reversed on day seven. All the students were assessed for both (1) GM chanting and (2) PL chanting. Four recordings were made on consecutive days for each randomly assigned participant. The students sat comfortably with their eyes closed as to chant GM for about ten minutes. In control session, the same subjects were seated in a relaxed posture with open eyes. The duration for both the sessions were equal. Analysis showed that GM session significantly performed better than PL session. Mantra recitation may be implemented in school setting which can help to raise the academic ability of the students along with their all-round development.

Both the earlier researches just reviewed, leaves the researcher with an opinion that the time period was very less to study the effects of Gayatri mantra.

C) Benefits of chanting the Gayatri mantra

Chandra Shekar (2007) presented the benefits of chanting the Gayatri mantra. The sages of ancient times selected the words of the Gayatri carefully and arranged them so that they not only convey meaning but also create very specific vibrations and powers of righteous wisdom through their utterance. Hindu Vedic scriptures describe how the sages accumulated tremendous spiritual powers through years of deep meditation and the chanting of Gayatri – these spiritual powers are called *Siddhi*. It is said that these *Gayatri Sadhaka* (spiritual seeker) begin to feel the presence of divine power in the inner self which induces immense strength and peace of mind. The rishis and sages of the Vedic Age have experienced and experimented on the enormous extrasensory energy pools – the *chakras*, *upachakras*, *granthis*, *koshas*, *matakas*, *upayatikas* and *nadis*, hidden in the subtle cores of the endocrine

glands, nerve bundles and ganglions. It is said that the activation of these energy pools rekindles rare virtuous talents and supernormal potential. Scientists, meta-physicists, spiritual practitioners and others are studying and rediscovering these ancient approaches towards self-realization. The secret of the supernatural impact of Gayatri Mantra in the physical domains of life lies in the unique configuration of the specific syllables of the mantra. The cyclic enunciation of this mantra stimulates the subliminal power centers in the subtle body. The pressure on tongue, lips, vocal cord, palate and the connecting regions in the brain generated by continuous enunciation of the twenty-four special syllables of the Gayatri mantra creates a resonance (or a vibration) in the nerves and the 'threads' of the subtle body. The musical flow thus induced; stimulate the extrasensory energy centers. The latter begin to stimulate and a sublime magnetic force arouses in the Sadhaka that attracts the vital currents of Gayatri Shakti immanent in the infinite domains. This magnetic charge induced by the continuous repetition of the Gayatri mantra 'attunes' the seeker's mind to link with these supernatural power-currents. It is significant that the prolonged repetition of the Gayatri has a cumulative effect on body and our mind. Minds get sharper, immune system gets stronger, and hearts open. When energy centers, including main Chakras, are activated by the vibrations of the Gayatri mantra, there is a positive and healing effect on life force energy –Prana. The Gayatri can be listened to, chanted, or even thought. There is power and potency in all three approaches.

The present researcher expresses that scientific approaches to discover the effects/benefits of Gayatri mantra is not enough.

2.3.Studies on the Impact of Mantras

a)Autonomic Changes during OM Meditation

Shirley Telles, Nagarathna. R and Nagendra .H .R (1998) recorded that the autonomic and respiratory variables that accompany "OM" meditation in seven experienced meditators with five to ten years of experience and aged between twenty nine to fifty five years. Each subject was studied in two types of sessions- meditation session with a period of mental chanting of "OM") and control session with a period of non-targeted thinking. Each session was of thirty two minutes duration with twenty minutes on meditation (i.e) mentally chanting "OM" with eyes closed, six minutes of non-targeted thinking and remaining six minutes of relaxed sitting with eyes closed.

Both types of sessions were repeated on three separate days. These meditators showed a statistically significant reduction in heart rate during meditation sessions when compared with the control session. There was significant and comparable decrease in finger plethysmogram amplitude (plethysmogram measures changes in volume within an organ or whole body usually resulting from fluctuations in the amount of blood or air it contains) during meditation and control periods compared to the preceding periods. There was also a non-significant trend of reduction in oxygen consumption following meditation. These findings might be indicating the fact that chanting "OM" mentally causes increased alertness even when the subjects were relaxed.

b) Autonomic Changes while Repeating Two Different Syllables- One Meaningful and other Neutral

Shirley Telles, Nagarathna .R and Nagendra .H .R (1998) recorded autonomic and respiratory variables in twelve normal healthy volunteers aged between twenty five to fourty years. These twelve volunteers were subjected to three types of sessions: (1) mentally repeating meaningful syllable "OM"; (2) repeating a neutral syllable "one" and (3) a session of non-targeted thinking. The subjects were familiar with both meaningful and neutral syllable. The subjects were assessed before, during and after the three separate sessions conducted; each on different days and at the same time each day. The duration of each session was about twenty five minutes uniformly for the three sessions, with fifteen minutes of actual test (mentally repeating OM- meaningful syllable/ mentally repeating ONE – neutral syllable/ non targeted thinking) and five minutes preceding and proceeding test period in every session the subjects performed the different tasks in context with their eyes closed. Analysis of data revealed that there was decrease in heart rate, respiratory rate following the mental repetition of any syllable; subjects with a brief period of experience with meaningful syllable "OM" show significant decrease in skin resistance during repetition of that syllable but not while repeating neutral syllable or non-targeted thinking; subjects with longer experience with repeating "OM" do not show this change; subjects with quite good experience with mental repetition of "OM" show a significant facilitation of sensory neural processing at mesencephalic /diencephalic levels while repeating the syllable on which they meditate. Naive meditators do not show this change. These results might be indicative of the fact that the process of understanding the significance of a meaningful syllable may be

continuous and is significantly influenced by the duration of meditation. The decrease in skin resistance level observed in naive meditators but not in experienced meditators represent an intermittent stage during which changes in sensory and evoked potentials are not yet obtained. This study also supports the fact that skin resistance levels may indicate cognitive involvement in the object of meditation in addition to being conventional indicator of sympathetic tone. Thus OM chanting that is known to have profound influence in Indian culture is found to cause significant changes in middle latency auditory evoked potentials which suggests facilitation of neural activity at either mesencephalic or diencephalic level.

In either of the earlier researches the age rage of the subject seems to be too wide. Hence the present researcher accords that age range could have been split up to understand how the effects vary with different age ranges. More focus is on physiological changes rather than psychological.

2.4.Personality Development Based on Indian Psychology Interventions

a) *Effects of Yoga Combined With Psychological Intervention on Personality among School Boys*

Sendhil. V and Kannappan. **R (2014)** Personality traits are long lasting personal characteristics that influence one's perception and thoughts and guide actions under various conditions. The present study aimed to investigate the effect of yoga with psychological intervention on personality of students in the age group of eleven to thirteen years. For the purpose of investigation one hundred and twenty students from sixth, seventh and eighth standards from two different schools were randomly assigned into experimental group (n=60) and control group (n=60). In the Pre-post control design, the experimental group was exposed to yoga with psychological intervention to improve their personality traits. The control group was not exposed to the training for the entire period. The teachers rated the School Behaviour Checklist for the children (SCHOBL) during, before, and after the intervention and follow up assessments were conducted for both groups, besides collecting socio demographic variables. The intervention focused on enhancing their personality traits such as extraversion, attitude towards school work, agreeableness, emotional stability and openness of the students. The yoga intervention was conducted for a period of six months covering a total of fourty sessions. The psychological approach included

counselling sessions which were conducted one to one and one to group for taking right decisions. The results have shown that the experimental group had significantly high scores on personality such as extraversion, attitude towards school work, agreeableness, and emotional stability when compared to the control group. The experimental group maintained the effectiveness and had significant changes in overall score of the scale at follow-up assessment. The yoga combined with psychological intervention is effective in increasing the personality of school going students.

b) *Effect of Yoga on Personality in Normal High School Students*

Sudhir Singh (2006) studied the effect of an Integrated Yoga Module (IYM) on personality of school students who were participants of a personality camp for ten days in a residential set up in Prashanti Kuteeram, Bangalore and South India. After stratifying for sex and age (thirteen to seventeen years), three hundred and five school students were randomly allotted to Yoga and Physical activity (Control) groups. Yoga group was administered IYM (Integrated Yoga Module) consisting of breathing exercises (pranayama), Çithilikarana Vyayama (Cithilikarana Vyayama as the name indicates are loosening exercises performed normally with speed and repetitions. These dynamic practices are akin to conventional physical training exercises except that most of these practices involve flexing of the spine. They not only help in performing the asanas but they also help in building up stamina and tolerance), Asana(Physical postures), Meditation (OM), Lecture on Yoga philosophy, Krida Yoga (Yogic games), Trataka (Yoga based on eye exercise) for improving all round personality at physical, mental, intellectual, emotional and spiritual levels while the Control group was practicing physical exercises. High School Personality Questionnaire (HSPQ), developed by Raymond B, Cattell in 1968 was administered to assess personality. The High School Personality Questionnaire assessment was taken on first day and nineth day. Paired t-test indicated that both Yoga and Physical activity (Control) groups showed improvement. The ANCOVA test showed that Yoga group had more significance than Physical activity (Control) group in Super ego strength, Venturesomeness and Individuality. The ten day personality development camp (both Yoga based and Physical activity based) helped students of thirteen to seventeen years to improve different factors of their personality. Students in Yoga

group became significantly more Warm hearted, less Excitable, more Super ego strength, more Venturesome, less Tense and Physical activity (Control) group become significantly more emotional maturity, more enthusiastic, less dependent, less depressive, more controlled. Boys in Yoga group became more venturesome, self-sufficient and relaxed. Girls in Yoga group became significantly less tense and dependent. Boys in Physical activity (Control) group became significantly less excitable, assertive and more super ego strength. Girls in Physical activity (Control) group became significantly more emotional maturity, less assertive, more enthusiastic and venturesome. Girls showed little more improvement than boys. It depends on their concentration, confidence, faith etc. Hence it will be valuable to incorporate Yoga in school education system at an early age.

c) *Effect of Integrated Approach of Yoga Module on the Personality Development of Students*

Nilkamal .N (2006) studied the effect of an Integrated yoga Module (IYM)on personality of school students who were participants of a personality camp for ten days in a residential set up in Prashanti Kuteeram, Bangalore, South India. This study was done to assess the efficacy of 'Integrated yoga module' (IYM) on the personality of students of age group nine to twelve; to compare the effect of yoga and physical exercise on the personality development of students of age range nine to twelve. In this study, school students (n = 400) were randomly assigned to two groups namely yoga and control group by lottery method. Yoga group was administered IYM, consisting of breathing exercises (pranayama), cithilikarana vyayama, asana (Physical postures), mediation (OM), lecture on yoga philosophy, krida yoga (yogic games), trataka (yoga based on eye exercise) for improving all round personality at physical, mental, intellectual, emotional and spiritual levels while the control group was practicing physical exercises. Children's Personality Questionnaire (CPQ), developed by Raymond B, Cattell, R B, Cattell in 1978 was used to assess personality. CPQ has fourteen variables. The assessment for personality was taken on the first and nineth day of the camp by using Children's Personality questionnaire.

The results showed significant improvement in Factor A (15.50%), I (10.25%), J (15.80%), O (12.97%) and Q4 (13.55%) in yoga group. In control group the improvements were found on domain-Factor A (13.57%), B (18.97%), J

(24.55%), O (28.74%) and Q4 (15.21%). Comparison between the groups showed that the yoga group was significantly better than control in factor I. The 10-day personality development camp (both yoga based and non-yogic physical activity based) helped students of 9-12 years to get improved in different factors of their personality. Students in yoga group became significantly more warm hearted, obedient, tough minded, vigorous and relaxed whereas students in control group became significantly more warm hearted, intelligent, vigorous, self-assured and relaxed. Boys in yoga group became more warm hearted and vigorous and girls became more intelligent and self-assured. Hence, this study has shown that integrated yoga practices and physical exercises in a residential set up can improve personality in students.

Researcher expresses that the duration of the study in either of the researches just reviewed has too little duration to produce tangible developments in personality. But supports the researcher's idea in using an Indian psychology based intervention for personality development and suggested the relevant tool for the present research.

d) Personality Development through Yoga Practices

Sripriya Krishnan (2005) investigated the effect of Simplified Kundalini Yoga on personality development of adolescents. Standardized questionnaire was use for assessment. Four hundred and fifty students from government, government aided and private schools situated in Chennai; participated in the research. The experimental group had two hundred and fifty students and their training consisted of simplified physical exercises, meditation and introspection. Results revealed the impact of the yoga on the various aspects of personality and the academic achievement of the students.

The present researcher is interested to know what aspects of personality were influenced after the intervention.

e) An Integrative Model of Personality and Personal Growth

George Mathew .V (1996) proposed an Integrative Model of Personality. The Integrative theory sees Stability (integration) as the single holistic level factor of personality. Instability (action or rest with Karthrubhava) is of two types and these are the two type level factors: Inertia being compulsive introversion, Inactivity or Thamas and Activation is compulsive extraversion, Rajas or over activity. Free action or rest

(action or rest with sakshi mathrabhava) is Stability. Stability is not ambiversion (rigid fixity at a middle point), but awareness, freedom and flexibility in overt behaviour. Personality is identified not in terms of overt behaviour observed externally, but from the point of view of origination of behaviour and degree of autonomy. Personal growth is increasing stability which involves decreasing Inertia and Activation. This reformulation makes it unnecessary to postulate a fourth Gunatheetha state. This is in line with the principle of parsimony which encourages simplicity and minimum number of explanatory concepts. Pure S (Inertia and Activation zeroed out) is the same as enlightenment. Effective yogic practice is what is required at a given time to decrease Inertia or Activation of the person and depends on the existing personality of the practitioner. The combination of practices which is most effective changes as the person's personality pattern changes. What is effective for a person with one type of personality can even be harmful for a person with a different combination of the three components. For example, meditation is highly useful for a person with a medium S person. Meditation can be harmful for a person with very low levels of S and meditation becomes a block for further development for the same person when he reaches a very high level of S. Therefore the role of psychologist lies in identifying the personality pattern of the aspirants and suggesting the combination of practices most useful at a given time for a person.

The present researcher denotes the obvious requirement of scientific formulation of this model of personality development.

2.5. Interventions Based on Indian Psychology That Promote Psychological Well Being among Adolescents

a) Mano-Yoga therapy (M.Y.T.) — A clinical method

Shrama R.S (2007) briefly outlined the concept of Mano-Yoga Therapy (M.Y.T.) as a clinical method – initially derived from Sankhya-yoga as also from several other prominent Indian thought. Much is drawn here from modern psychology, particularly from cognitive psychology. Contribution of Neuro sciences towards the understanding of human being here and now in the world has been appreciated and significance of the Cognitive, Emotive and Behavioural aspects in human development has been fully acknowledged. While doing this, the elements of

cognitive therapy as found implicit in the related traditional Indian positions have been explicated. Concepts of Shavasana (the final pose of any yoga class with deep restoration pose), Vipashyana Meditation(in which mindfulness of breathing and of thoughts, feelings and actions are being used to gain insight in the true nature of reality) and Dhyana have been translated into a theory and practice of deep relaxation. It implies letting-go and ignoring the negative thoughts, which occur in the mind spontaneously. M-Y relaxation proves to be a supportive process to the treatment of mental and psychosomatic problems. M-Y relaxation and counselling also proves very much relief giving in case of chronic diseases. In serious surgical cases also application of M-Y relaxation before and after procedure assures better results. M-Y has been found to be a very useful for the purpose of mental health development, especially emotional development of the child and adolescent.

This study makes explicit similarities between modern psychology based therapies and Indian psychology based therapies. From the researcher's view point, this similarity could be validated by subjecting it to statistical comparison of efficiencies of these seemingly similar therapies.

b) Implementation of Yoga programs in schools: Need of the hour

Manju Sharma (2004) presented that Yoga is a psycho-physical discipline with roots going back about five thousand years. Increased Yoga practices of today in the West and in India focus on the physical postures called asanas, the breathing exercises called pranayama, and meditation. However, there is more to it than that and the deeper gone into, the richer and more diverse the tradition becomes. This study aimed at implementation of Yoga programs in schools. Keeping this in view, local schools were examined by asking questions from principals, teachers and from parents. The questions dealt with problems that the children, teachers and parents are facing, especially problems of adjustment. Children have many problems and experiences which their parents, teachers and others never had and are often unable to understand. The way parents and teachers treat children has a profound impact not only on family reactions but also on the children's attitudes, behaviour, mental health and adjustment to their environment. Yoga is being regarded as an important measure for better adjustment. Therefore, there is an urgent need to include Yoga exercises in

the school curriculum so that from the very beginning, the children will learn to adjust with their problems and have better life and healthy minds and bodies.

This review deals with the realization in terms of an urgent need for the inclusion of yoga in the school curriculum. More over this review has contributed to the present researcher's idea of implementing the mantra yoga intervention to school students

c) *Integral psychotherapeutic intervention for disturbances of mind, body and vital among adolescents*

Annalakshmi Narayanan (2004) attempted to evolve a psychotherapeutic intervention based on the Science of Integral Yoga discovered by Sri Aurobindo and The Mother of Sri Aurobindo Ashram, Pondicherry. The term integral psychology is thus framed in the present piece of research that attempts to intervene in the treatment of certain disturbances of the Mind, the Vital and the Physical. The probabilistic orientation therapy alias Sailing Through therapy and Yoga Nidra were also considered for the formulation of interventions that were tailored to the individual disturbances diagnosed using The Integral Psychological Diagnostic Manual (IPDM). The sample (n = 120) were volunteers from two schools in the neighbourhood of Bharathiar university with sixty normal adolescents from each school, aged between fourteen and nineteen. Sample from one school formed the experimental group (EG) and the other school formed the Control group (CG). The intervention was carried out by the investigator on individual basis. The duration of the intervention ranged from six to nine weeks depending upon the nature and severity of the case. In order to ascertain the efficacy of the psychotherapeutic intervention on adolescent school students this investigation assessed the experimental and control groups by administering MMPI-2 and Subjective Well-Being Scale both at the baseline and post intervention.

The results of the comparison of the EG and the CG on their scores on the anxiety scales consistently show that the EG experienced less anxiety after the intervention. The comparison of the EG and the CG on their scores on depression scales consistently showed that the EG experienced less depression after the intervention. The EG seems to have increased energy to cope with problems and have

concluded that life is worthwhile, and seem to feel gaining control over their thought processes after the intervention. The findings also show that the EG has reduced its undue health concerns and feeling somatic symptoms after the intervention. The EG tends to feel less alienated, isolated, and estranged and tends to describing it as comfortable and happy after the intervention. The EG has gained greater cognitive and conative ego mastery after the intervention. EG has improved in poise, self-assurance, and social initiative as well as in perseverance, resoluteness, and group leadership after the intervention. EG has improved in self-confidence and feeling of adequacy in handling their problems after the intervention. The EG has improved its adjustment, effectiveness, optimism and conscientiousness, post intervention.

The comparison of the EG with the CG on their magnitude of scores on the various scales derived from MMPI-2 adopted in this study has shown that the EG had consistently lower scores compared to the score of the CG on all the scales assessing the negative symptoms and higher score compared to the score of the CG on all the scales assessing the positive traits. Further, the EG had higher scores on the negative scales on the negative traits at the baseline, but eventually had lower scores on the same scales post intervention. Furthermore, the EG had lower scores on the scales on the positive traits at the baseline, but eventually had higher scores on the same scales post intervention. The trends of these results suggest that the EG has been more resilient than the CG.

The comparison of the EG and the CG on their scores on the various scales of the Subjective Well-Being reveals interesting findings. The EG had scores which are significantly less than the scores of the control group on the Inadequate Mental Mastery and General Well-Being Negative Affect. The EG has higher scores on the General Well-Being Positive Affect and the Confidence in coping. Findings suggest that the EG has developed an enhanced sense of having sufficient control over, or an ability to deal efficiently with certain aspects of everyday life that are capable of disturbing mental equilibrium. The EG seems to have an enhanced sense of subjective well-being after undergoing the intervention. The EG adopted a different perception of life and perceived life to be happier and less negative, thanks to a change of inner attitude that precipitated significant psychological changes attributable to participation in the intervention. The EG had gained some positive personality

strengths after attending the intervention. EG had improved in its ability to manage situations, wherein things do not turn out as expected, ability to remain calm in critical situations, confidence in coping with crises, ability to concentrate well on doing things etc., after participating in the intervention. The EG has enhanced its mental mastery over environment after undergoing the intervention.

The comparison of the EG and the CG on the magnitude of the scores on the different questionnaires of the Subjective Well-Being Inventory show that the EG, compared to the CG had higher scores on negative traits at the base line and lower scores on the same traits post intervention. In the same manner the EG, compared to the CG had lower scores on positive traits at the base line and has surpassed the CG in its scores on the same traits post intervention. The pattern of the results is in line with the pattern of results observed in the cases of MMPI-2 Scales used in this study. This reveals that the EG is more resilient than the CG and has improved its mental health and subjective well-being thanks to the intervention.

This review supports the present researcher in using an Indian psychology based intervention for personality development.

2.6. Interventions Based on Indian Psychology Adopted in Other Areas of Psychological Researches

a) Improved Performance following Yoga

Manjunath N.K and Shirley Telles (2004) studied the improvement in performance following the practice of Yoga for a period of thirty days. Twenty girl volunteers between ages ten and thirteen participated in the study and they were assigned to two group, one of which practiced yoga for an hour and fifteen minutes each day , all days of the week and the other group practiced physical training at the same time and same duration. The yoga training included asanas (physical postures), pranayama (regulated breathing practices), kriyas (internal cleansing practices), meditation, bhajans (devotional songs) and relaxation techniques. Physical training included jogging, standing and sitting exercises, lifting of dumbbells and bending forward, sideward, backward. The performance of both groups was assessed based on planning time, execution time and execution time using Tower Of London test before

and after thirty days of those two interventions (yoga and physical training) on those two respective groups. Pre and post comparisons of data were done for each group separately. Results showed that yoga training for period of one month reduced the planning and execution time and the number of moves taken to accomplish a complex task got reduced considerably when compared with the physical training group which showed no much change.

b) *Yogic Breathing through a Particular Nostril Improves Spatial Memory*

Naveen .K.V et. al (1997) studied the impact of yogic breathing through a particular nostril on spatial memory. One hundred and eight school children aged between ten to seventeen years participated voluntarily in this study. Subjects were randomly assigned to four groups. The four groups were subjected to right nostril breathing, left nostril breathing, alternate nostril breathing and breathing awareness without manipulation of nostrils respectively. These techniques were practiced for about ten days; at four times each day and twenty seven rounds/cycles each time. There was a control group (fifth group) of twenty seven children that matched the age range of the four experimental groups. All subjects were found to be right hand dominant based on self-report and observation. Verbal and Spatial memory test were given to both groups before and after the intervention. Analysis of pre and post-test measures revealed that there was significant increase (by 84%) in spatial memory in the four experimental groups while the control group showed no change. These results lead to an inference that yogic breathing increases spatial memory rather than verbal memory.

Both the earlier researches supports the present researcher in understanding the efficiency derived out of Indian psychology based intervention.

2.7. Reviews Related to the Need for the Study

a) *Social information processing problems related to reactive and proactive aggression of adolescents in residential treatment*

Oostermeijer. S. et.al (2015) conducted a study that revealed that adolescents in residential treatment predominantly show externalizing problems. To provide more

tailored treatments, gaining knowledge on underlying processes is important. Aggression is often subdivided in defensive/reactive, and instrumental/proactive aggression. The social information processing (SIP) model assumes that reactive aggression involves early SIP, whereas proactive aggression involves late SIP. This study investigated SIP steps in relation to reactive and proactive aggression of adolescents in residential treatment. In total eighty one adolescents were included. Analysis revealed that, recognizing problems were negatively related to proactive aggression. The late SIP steps generating antisocial goals and responses were related to both aggression subtypes. Feeling competent and positive evaluation related to proactive aggression, while overseeing consequences related to reactive aggression. Partial correlations were non-significant. Post-hoc analysis for males and females separately showed differences in relationships between aggression measures and SIP. This study indicated that both subtypes of aggression are related to early and late SIP steps. However, discrepancies are present which could potentially provide specific targets for treatment.

b) *Home and School Environment as Determinants of Aggression and Self-concept of Advantaged and Disadvantaged School Children*

Sharma and Amrita (2014) studied home and school environment as determinants of aggression and self-concept of advantaged and disadvantaged school children. Three hundred students of class ten with aged between fifteen and sixteen years from four schools (One hundred and fifty from advantaged schools and One hundred and fifty from disadvantaged schools) participated in the study by selecting them through purposive random sampling. Subjects were administered with Home Environment Inventory (1989) and School Environment Inventory (2000) by Karuna Shankar Misra, Aggression Questionnaire (1992) by Buss and Perry and Self-Concept Questionnaire (1984) by R. K. Sarawat. The results revealed that home and school environment were positively and significantly correlated; school environment significantly and positively correlated with self-concept and significantly correlated with aggression. Boys and girls significantly differed in self-concept and aggression-the boys and girls belonging to advantaged schools differed significantly in self-concept while boys and girls belonging to disadvantaged schools differed in aggression. Home and school environment with their various dimension were found to

be significant predictors of aggression and self- concept. The whole sample belonged to both advantaged and disadvantaged schools.

c) Violence in schools

Press Trust of India (2014) reported an incident in which a class eleven student was killed by his classmate in their classroom in Vilangudi of Dindigul District on November twelfth and another incident in which a class eight student was murdered by a former student of the school in Pandalgudi of Virudhunagar District.

d)Teen violence rising, schools agree

Bharath Joshi and Sharadha Kalyanam (2013) reported that the teachers and administrators in the city of Bangalore were increasingly witnessing violent behaviour among the teenagers after the Express reported the incident of a student in class nine who brought air gun to school. In a prestigious international school in the city, a student of foreign origin brutally attacked an inmate of his hostel. The victim had to be admitted to a hospital for treatment. The former was rusticated for a week and was subsequently counselled.

K.S.V. Subrahmanyam, Principal, B.M. English School, Bangalore reported, Students don't bring guns, but they do bring knives sometimes. Once in a while, some students indulge in gang-wars outside the school premises. It is usually between one group that wants to attack another to seek revenge over some reckless comment or joke. He further added that the fighting parents and media violence are reasons for this trend.

Even Delhi Public School (DPS) has its share of students with violent behaviour. Mansoor Ali Khan, a member of the Management Board of DPS shared the experience with students in class eight to ten who were short tempered and who elicited violent behaviour, which includes destruction of furniture and school property and attacks on other students. Issues need to be dealt with seriously at a time when social structures are changing and exposure to violence is increasing. There are four counsellors in the school at all times. So, Children gets counselled, and are talked with to find out where the violence is stemming from. Parents are also involved in the process.

Usha Mohan, an educational consultant expressed that it is a growing culture and there is a need to show students the repercussions of their actions. She insisted the need for sweet talk and non-harsh attitude.

e) Factors that Contribute to Assaultive Behaviours in School Children

Robert S. Fong, Brenda L. Vogel & Ronald E. Vogel (2008) conducted a study that examined various factors that contribute to assaultive behaviour in school. They focused on the differences between youth whose behaviour was not problematic and those who admitted to threatening, stealing, or physically assaulting students, teachers, or staff. A questionnaire was developed and distributed to a random sample of students at a rural California middle school that serves the children of a large migrant worker population. Results suggest that the factors linked to school violence in this unique sample were very similar to those identified elsewhere. Compared with youth who did not exhibit behaviour problems in school, youth who admitted to behavioural problems in school had lower self-esteem scores, less of an ability to control their anger, less commitment to school, weaker bonds with teachers, and less parental supervision after school.

f)India Shaken by School Violence

Emily wax (2008) reported two fatal shootings and a stabbing in Indian schools. These incidents rattled parents and teachers and have forced India to confront an issue that it had known to happen in other countries. While school violence remain rare in India, the three attacks since December 2007 have led to calls for increased security measures and strict regulations regarding the guns in civilian hands in India.

An eighth grader stabbed an eleventh grader who had attempted to stop a fight. During the December of 2007, a fourteen year old boy was fatally shot by two other boys at an International School in Gurgaon. As a replay, similar crime happened when a fifteen year old student shot a seventeen year old at a government school in Madhya Pradesh this January.

Sameer Malhotra, Head of Psychiatry at Fortis Hospital, New Delhi, reacted on these issues saying that, the critical point has reached and no more to delay until the next act. There is an urgent need for anger management workshops in schools focussing on the difference between assertion and aggression. She added that it's time

to go deep and start talking to students about what is disturbing them and the right way to handle it. World today has changed and sometimes human touch is lacking. Empathy is lost and there is a need to have more moral-based education in Indian Schools.

A survey report reveals the fact that India stands the second next to United States in the number of firearms possessed by civilians ranging between thirty two to sixty million.

The Principal of the school at Gurgaon had recommended meditation and called for parents according to media report.

g) *Need for Early Intervention for the Prevention of Aggression and Violence in School*

Paul Boxer et.al (2008) mentioned that Primary prevention has been conceptualized to be early intervention. That is, programs seeking to prevent the emergence of some problem behaviour or psychopathology in a population typically are construed as programs that need to be provided to children as early in development as possible given the constraints imposed by their social, emotional, and cognitive capacities. From a strictly logical standpoint, this assertion makes sense especially with regard to aggressive behaviour. Aggression emerges fairly early in development and can lead to socially and financially costly outcomes later on. Thus, it seems reasonable to maintain that aggression and violence prevention programs should target children as young as possible. However, primary prevention of aggression can occur throughout childhood and adolescence given the developmental underpinnings and variants of this behaviour.

h) *Influences on Authoritarian and Educational/Therapeutic Approaches to School Violence Prevention*

Amanda B. Nickerson & William H. Spears (2008) conducted a survey that examined the use of two philosophical approaches to school violence prevention and the factors that influence the use of specific strategies. School policies, programs, and discipline strategies assessed by the School Survey of Crime and Safety (SSOCS) were categorized as authoritarian (i.e., restrict student autonomy through punitive discipline and assume a policing

function) or educational/ therapeutic (i.e., involve students, parents, and teachers in improving behaviour and school climate). Based on responses of the two thousand two hundred and seventy school principals who completed the SSOCS, findings revealed that large, urban schools used both authoritarian and therapeutic approaches, such as security, violence prevention programs, and parent training. Rural schools used authoritarian practices, such as corporal punishment and suspension without services, more often than schools in other locations. Schools serving low SES students were more likely to use security, random metal detector checks, and corporal punishment, regardless of neighbourhood crime levels. A greater number of mental health professionals predicted the use of violence prevention programs, student involvement in resolving problems, and parent training.

i) *Character Education as a Prevention Strategy for School-Related Violence*

Thomas W. Miller, Robert F. Kraus, Lane J. Veltkamp (2005) researched on Character Education as a Prevention Strategy for School-Related Violence. Character education has been a valued partner in prevention-based strategies. Prevention education is seen as a key component in addressing school violence. Three hundred and three fourth-grade students in nine elementary schools in a predominantly rural community were provided a specialized program of character education as a prevention tool to reduce the potential for deviant behaviour. Students in three schools were in the no treatment control condition. Students in the remaining six schools received a school-based and curriculum-driven character education program. These six schools were divided into two conditions. Two of the schools were in the curriculum-only condition, while in four of the schools' students were randomly selected to receive a protocol-driven summer academic (six weeks) and experiential education/program. Those not selected were an embedded control group. The intervention results suggest that the students who received the academic/camp intervention had the greatest increases in social competence, the largest gains in reading achievement, and the largest increase in parental interaction.

j) *Aggressive Personality and its development*

Rita Cantrell Schellenberg (2000) explored how parent-infant/child interaction, peer interaction, and television contribute to the social learning of

aggression. Research has indicated aggression is a stable personality characteristic; thus, once aggression has been internalized it is likely continue into adulthood. Middle childhood has been deemed by many researchers and theorists as the crucial period for lasting aggressive personality development. Studies also indicate that poor peer relations during adolescence especially when coupled by poor parent-adolescent relations, have a strong influence on the development of adult aggressive personality. While research and theoretical perspectives are limited, it seems only logical that the characteristics of the child would determine the outcome of peer interactions; making initial parent-child interactions during infancy and early childhood as crucial as peer interactions during middle childhood and adolescence; in the development of aggression. Children bring characteristics to middle childhood and adolescence that contribute to peer rejection in the first place. Hence, this author believes that each stage builds upon the other, dependent upon the other, contributing equally to the development of aggressive personality.

Infancy and early childhood should be stressed as important for "setting the stage" for future social interactions. In addition to social learning through human interaction, children learn social behaviours through the viewing of television programs. Unfortunately, research has indicated that children learn antisocial and aggressive behaviour more often than pro social behaviour, due to the overwhelming amount of violent programs and a lack of parental supervision. Thus, television viewing time and programs must be monitored by parents, and programs must be rated so that parents will be better able to screen their child's television programs. There is enough empirical research to warrant the implementation of school-based prevention, outreach, and counselling programs for children, parents and educators.

2.8. Reviews Related to the Rationale of the Study

a) *A comparative study of personality, mental health, and value patterns of delinquent and non- delinquent adolescent*

Gyani and Yogesh (2013) Two hundred and fifty non-delinquent adolescents (One hundred and twenty five males and One hundred and twenty five females) and two hundred and fifty delinquent adolescents (One hundred and twenty five males and One hundred and twenty five females) aged between fourteen and sixteen years

participated in the study. Both set of subjects were selected through purposive sampling method. These selected set of adolescents (delinquent and non-delinquent) were administered with three tests: The value test by Taresh Bhatia and S.C. Sharma, Multi-variable personality inventory by Taresh Bhatia and Arunima Pathak; Mental Health Scale (MHS) by Taresh Bhatia and S.C.Sharma. The results of statistical analysis revealed that the non-delinquent adolescents have significantly high values as theoretical, religious, social, democratic and health than delinquent adolescents, while delinquent adolescents have significantly high values as economic, hedonistic and power values than non-delinquent adolescents; the adolescents of good mental health had significantly high values as theoretical, religious, social and democratic values while the adolescents with poor mental health had significantly high values as economic, hedonistic, and power values. Adolescents with high social desirability had significantly high values as theoretical, religious, social, democratic and health while the adolescents low in social desirability had significantly high values as economic, hedonistic and power values; adolescents with extraversion personality had significantly high religious values than adolescents with introversion personality; adolescents with high psychoticism personality had high hedonistic and power values while adolescents low in psychoticism personality had significantly high theoretical values; adolescents high in dogmatic personality had significantly high economic and power values while adolescents low in dogmatic personality had high theoretical , democratic values; adolescents high in ego-ideal personality had high values as social, democratic and theoretical while adolescents low in ego ideal personality had significantly high economic and hedonistic values; adolescents high in alienation personality had significantly high economic, hedonistic, and power values while the adolescents low in alienation personality had significantly high theoretical , religious, social and democratic values; Adolescents with high emotional instability had significantly high aesthetic, economic, hedonistic, and power values while emotionally stable adolescents had significantly high theoretical, religious, social and democratic values; highly self-confident adolescents had significantly high social, theoretical, and democratic values; highly empathetic adolescents had significantly high theoretical, religious, social, democratic and health values; gender (male and female) had significant effect on theoretical, political, religious, social, economic, democratic, hedonistic and power values; the type of adolescents (non-delinquent and delinquent) had significant effect on theoretical, political, religious, social economic,

democratic, hedonistic, power, health values; mental health of the adolescents had significant effect on the theoretical, religious, social, economic, democratic, hedonistic and power values.

This review supports the researcher in terms of the target group to be intervened and the association between personality and delinquent tendencies.

b) *Influence of children's personalities on interventions for aggression*

Stoltz .S et. al (2013) conducted a research on the effectiveness of interventions with children. These studies find that school-based interventions can be effective, but that the level of benefit seen often varies with children's age, gender, or ethnicity. Studying factors that influence (or moderate) the effect of an intervention is beneficial because it determines for whom each treatment works best. Past intervention studies have typically focused on the type of moderators listed above (i.e., age, gender etc.). However new research on the development of behaviour problems suggest that certain personality traits may place children at greater risk for developing and maintaining their aggressive behaviour. Based on this past research, the authors of this current study were interested in whether children's personality traits (i.e., extraversion, benevolence, conscientiousness, emotional stability, and imagination) would influence the degree to which they benefit from interventions for aggression.

Teachers from fourty eight elementary schools in the Netherlands identified children with high levels of externalizing behaviours. The children received care as usual (control condition) or the Stay Cool Kids intervention. The Stay Cool Kids program consisted of eight weekly one-on-one sessions, each lasting fourty five minutes. Training was provided by staff from youth mental healthcare centres and focused on creating a less negative self-perception, creating a more accurate representation of ambiguous situations, managing anger, and generating less aggressive responses to provocation. The children were assessed for aggression prior to the intervention, immediately after the intervention, and at a six-month follow-up.

The intervention reduced aggressive behaviour in children with high levels of conscientiousness, and in children with low levels of extraversion. No reduction in aggressiveness was seen for children with low levels of conscientiousness or high

levels of extraversion. The authors posit that the intervention works better with high conscientious and low extraversion children because their aggression may result from a reaction to life stressors as opposed to low conscientious and high extraversion children whose aggression may be more personality-related. These results suggest that low conscientious and high extraversion children may need a more intensive individualized treatment than children with other personality types.

This research is one of the first to include personality as a moderator in the intervention based study on management of aggression. The findings highlight the importance of considering child personality when researching and applying interventions for aggressive behaviour.

This research review supports the researcher in terms of a school based intervention strategy.

d) *Development of resilience among school children against violence*

Lipi Mukhopadhyay (2010) examined development of resilience among school children against violence. The study intended to highlight the gap between knowledge and its application with appropriate tools in understanding and moulding human behaviour on par with socio-economic and cultural domains; the influence of family characteristics and cultural factors in development of positive behaviour and the impact of peer groups and school environment on children's behavioural problems.

The present study is a part of a longitudinal survey on adolescent children's strength conducted in two metropolitan cities – Delhi and Kolkata and in rural Tribal area of West Bengal. Sample selected from nineth and tenth standards of prominent co-education Public Schools of Delhi and Kolkata and government schools of West Bengal through a checklist of positive values, parental education and income and sibling information. Total sample size was four hundred in which two hundred each accounted for male and female students. Another checklist on students' conduct, performance in examination, relationship with teachers and peers influence was used. Based on the information collected through checklists on variables like self-confidence, discipline, resilience, care, trust, teamwork and academic performance

and reports of the teachers about the conduct of students, a research team met the parents of a selective group for interviewing and analyzing data. An in-depth interactive probing and discussion undertaken to gauge the issues like temperament, behaviour disposition, parental time, support, interaction with their children and immediate neighbourhood.

In case of students with high academic scorers (seventy five and above) with apparent positive values, it is observed that mothers were housewives, educated and spent quality time with their children. They were vigilant towards their children's daily school activity, task and teachers' comments. They also attended Parents Teachers Meetings regularly and were aware of their children's performance in class and peer association. Students with low academic results (less than forty marks) showed that parents had no time to spend with their children. They hardly enquired about their school activities and marks obtained in examinations. Such students were intelligent although their academic performance was not up to the mark. On enquiry it was revealed that students were not motivated to study, spent most of their time in socializing and also missed classes. They mostly belonged to high socio- economic backgrounds with nuclear families having low interaction with parents. Parents of such students were authoritative and used restrictive discipline on children. In rural tribal areas, parents were not educated and belonged to low socio-economic backgrounds. Their community life was found to be supportive and caring. Children had to share the work at home like taking care of their younger siblings, helping parents in getting food and other necessary resources for their homes. Children of such families were hardworking and resilient to stress and unfavourable circumstances under the threats of cyclone and natural hazards and lack of resources. They showed high respect to elders and teachers, less aggression and stress.

This research review supports the present researcher in terms of personality factors that made adolescents' resilient to aggression and the environmental factors that has contributed to such a resilient personality.

From the literatures reviewed, it is apparent that school violence is at an increase, there is an urgent need for an intervention that can bring down aggression. Personality has to be intervened to bring aggressive tendencies to a halt. No scientific researches could be found to establish the relationship between Personality factors and Gayatri mantra (which is said to increase the 'Sattva' qualities). Mantras are said to intervene the manomaya sheath of existence. Moreover Indian Psychology based interventions may better support the present need to bring down aggression. Beyond doubt these interventions have been found to benefit than impair.