DISCUSSION

Adolescents go through complicated phases of physical, psychological and social development. Tribulations during adolescence sometimes happen to be uncontrollable. The fact that the adolescent is still being aquatinted by novel situation, people, personal behaviours, demands of the society, dealing with such immense new situations become all the more difficult.

Reports suggest that younger people are more prone to stress and anxiety (David, 1990), and also that negative outcomes are associated with experience of simultaneous changes during adolescence (Petersen, Sarigiani & Kennedy, 1991).

Though there may be individual differences, adolescents self-esteem is assessed on aspects such as physical attractiveness, peer acceptance, academic and athletic competence and behaviour globally (Fend & Schrorer, 1985). Adolescents with high self-esteem tend to use more problem focused strategies than emotion focused strategies for coping (Mullis & Chapman, 2000). Disagreement of adolescents with their parents has been associated with emotional difficulties, conduct problems, drug and alcohol consumption and poor academic performance. Other associated variables also include independence, self-esteem, oral development, anxiety and achievement motivation (Kaushik & Rani, 2005).

Adolescents may be stressed due to insufficient coping resources leading to mental health problems (Klerman, 1993). It is not so that all
adolescents engage in problem behaviour such as substance abuse and delinquency, thereby showing different trends in their self esteem (Petersen & Leffert, 1995). Factors associated with drug use among adolescents are associated with low self-esteem, stressful life events, emotional problems, disturbed family situations and poor school adjustments. Vexation related to daily hassles (Newcomb & Bentler, 1989), regular problematic interactions with peers, inability to cope further might develop into a serious disorder too.

When anxiety, stress, negative mood is not dealt with in the right way and at the right time it may result in a generalized anxiety disorder or a stress related psychosomatic disorder or a mood disorder. The generalized anxiety disorder is reported to be beginning especially in the mid teens (Barlow, Blanchard, Vermilyea, Vermilyea & DiNardo, 1986). There are reports also suggesting that stressful life events appear to play certain role in the onset of generalized anxiety disorder (Blazer, Hughes & George, 1987), with it being more common among women (Barlow, 1986).

6.1: Difference among the Arts and Science female adolescent subjects on all the dependent variables

Every school and college at their eleventh and twelfth level has Science and Arts segment of subjects. It is a general assumption that the Science students are under greater deal of stress due to their difficult study course, appearance in the selected prestigious entrance exams and numerous tuitions that they have to attend. This assumption was rightly justified when during the preparation of the stress inventory the Science subjects reported
of having no time for themselves. They started with tuitions from about six in the morning, followed by regular school or college schedule then again continued with tuitions till late evening. All the Science students had one aim that was clearing the PMT entrance examinations. Not being able to accomplish this would land them in just another BSc degree for which they were not very contented.

The present study revealed no significant difference among the Arts and Science class of subjects on all the dependent variables except the achievement motivation scale (Table 5.1, 5.2). The Science subjects showed higher level of mean score on the achievement motivation scale as compared to the Arts subjects. Similarly Singhvi (2000) in a study on the effect of psychological discordance and need for achievement upon adjustment and educational achievement reported that among the eleventh grade science students the need achievement appeared to work better for their education achievement.

High achievement motivation seen among the Science students as compared to their Arts counterparts could be due to the fact that Science students are focused right from their eleventh class on clearing their PMT entrances after the twelfth. The Arts students however have an open and wide option to think and choose from the various fields of course, and seem not to be very focused on their goals.

The present study showed no difference between the Arts and Science subjects on variables such as state anxiety, trait anxiety, test anxiety, stress, negative mood regulation and self-esteem. Difference is not seen on
the state anxiety and trait anxiety maybe because these variables are not much affected by the fact whether the subject is a Science or an Arts student. Rather it reveals more of the fact so as to how one feels at that moment and what she generally feels according to the characteristic traits of behaviour that she possesses.

The Science and Arts subjects conceivably did not show any difference on their scores of Test anxiety for the reason that it is important especially for students whether Arts or Science to pass and clear the tests in order to be promoted to the next class. Further this also affects their self-esteem and peer recognition. Passing the tests also gives them real sense of satisfaction and accomplishment, and positive reinforcement from their parents and teachers. Negative mood regulation and self-esteem are also issues that are more so viewed as adolescence variables and not that of Arts or Science differentiation.

6.2: Interrelationship among state anxiety, trait anxiety, test anxiety, negative mood regulation, achievement motivation and self-esteem.

The varied variables such as anxiety, stress, negative mood, achievement motivation and self-esteem affect each other in some way or the other. A healthy individual is an outcome of a holistic well being involving physical, mental and social aspects. To enhance the individual’s self, comprising of physiological, psychological, cognitive, behavioural and social dimensions one needs to live life devoid of anxiety and stress. The individual also needs to make himself capable of regulating his negative
mood and enhance his self-esteem and achievement motivation. These variables seem to be related to each other in varied situations.

(i) Anxiety, Stress, Negative Mood and Self Esteem

In the present study high correlation between state anxiety, trait anxiety, test anxiety, stress, negative mood regulation and self-esteem has been observed for adolescent female subjects (Table 5.3). The state anxiety, trait anxiety, test anxiety and stress, further trait anxiety and stress, then test anxiety and stress and also the negative mood regulation and self esteem shows a high positive correlation. This shows that there are chances that those high in trait anxiety would show high anxiety during a particular state too. Those individuals who are anxious most of the time are likely to exhibit this trait during test situations also. Stress and anxiety are also associated to one another as when one occurs the other is accompanied in some form as an additional concept.

Anxiety hinders school performance and achievement and the main source of anxiety is fear of failure leading to loss of self esteem (Tobias, 1985; Hill & Wigfield, 1984). Thornburg (1984) emphasizes that low anxiety is a better motivational state than high anxiety for classroom test conditions particularly for stressful test conditions. Fickova (1990) too has revealed high self-esteemed individuals to be higher in extroversion and conscientiousness. Whereas those with low self esteem are high on neuroticism, high state and trait anxiety.

High negative correlation is seen between state anxiety, negative mood regulation and self-esteem, trait anxiety, negative mood regulation and
self-esteem, test anxiety, negative mood regulation and self-esteem and also between stress, negative mood regulation and self-esteem. The ability to regulate negative mood and develop positive self-esteem may help an individual to deal with anxiety and stress successfully. Subjective distress is dominated by neuroticism, general physiological distress and negative affectivity. Negative affectivity also includes factors related to a person's trait anxiety, depression and low self-esteem (Watson & Clark, 1984). There is increased awareness and concern over the impairing effects of test anxiety on the mental and physical health and performance of students (Broota & Sanghvi, 1994), which are further associated to stress, low achievement motivation and self-esteem.

Studies present a dominated interrelationship among distress, neuroticism, general physiological distress and negative affect (Gotlib, 1984; Zurawski & Smith, 1987). Anger, guilt, contempt, disgust, loneliness, sadness and self-dissatisfaction are associated factors of negative affectivity, which cause stress (Watson & Kendall, 1989). Anxiety, stress and negative affectivity also share common symptoms such as insomnia, depression and excessive worry (Watson & Clark, 1984). Another association exhibits that those having higher negative affectivity may rate stressors as more upsetting. The correlation between reports of life stress and dysphoric mood may show reflecting measurements of negative affectivity (Depue & Monroe, 1986).

The undesirable small life events excluding the health related events was associated with high anxiety and also the internally caused undesirable events were highly correlated with negative affects, though externally and
internally undesirable events both showed significant relationship (Zautra, Guaraccia & Dohrenwend, 1986).

There are related stress variables such as daily problems, emotional states, major stressful events and lack of problem solving or coping, influence one another, and increase the stress proves thud leading to negative affect (Nezu & D’Zurilla, 1989). Brett, Brief, Burke, George & Webster (1990) believes that individuals with high negative affect express distress, discomfort and dissatisfaction. Studies have found that daily stressful events are better predictors of health and psychological dysfunction than major life events and they also have influences, which negatively affect health and psychological outcomes (Nezu & Ronan, 1985; Weinberegr, Hiner & Tierney, 1987).

Small events may play an important role in the regulation of affective states as those occurring in high frequency may strain the adjustive process and cause imbalance in one’s relation with the environment. Accumulations of small undesirable events in a day, week or month disturbs the adjustment process and arises negative affect (Zautra, Guarnaccia & Reich, 1989; Eckenrode, 1984).

According to Leventhal & Nerenz (1983) the affective response predominating in a particular stressful situation depends on various factors such as the type of stressor experienced, an individual’s perception and appraisal of the stressor experienced. Pattern of autonomic responses, biochemical changes and also the outcome of a persons coping attempts affect the affective responses.
The adolescents have shown alliance among life stress and depressed mood mediated by self-concept, clarity and self-esteem. Studied have shown that self-esteem is the greatest predictor of depressed mood (Chang, 2001). High self esteem adolescents also show high extroversion and conscientiousness and low self esteem correlates highly with high state, trait anxiety, neuroticism, the predictors of self esteem also includes neuroticism extroversion, conscientiousness, state and trait anxiety (Fickova, 1999).

Those adolescents who high self esteems are less likely to become upset in response to stress (Whisman & Kown, 1993). It is also seen that young people with low self-esteem in a demanding life situation do prefer help seeking orientation (Vyrost, 2000). Study has also revealed that hose with high self-esteem have shown a trend in which they prefer humor, positive reinterpretation and growth as coping strategies (Gurnakova, 2000).

It is evident in this study that the adolescent females show high correlation among state anxiety, trait anxiety, stress, negative mood regulation and self esteem thereby proving a causal and effectual relation among these variables.

(ii) Achievement Motivation

The current study however did not reveal any significant relationship among achievement motivation and state anxiety, trait anxiety, teat anxiety, stress, negative mood regulation and self-esteem (Table 5.3). Achievement motivation was selected as a dependent variable in this study,
for the reason that it was presumably thought that stress, anxiety and self-esteem are associated variables of achievement motivation. Such relations were seen in the study of (Wong, Wiest & Cusick, 2002), where they reported of some preliminary support for self worth as a significant predictor of motivational orientation. They also report of such links, which have been hypothesized by (Harter, 1981) competence motivational theory suggesting further empirical attention, as they believe that it is consistently seen that students self perceptions have a significant impact on academic outcome. Both motivational orientation and academic achievement are factors in relevance to achievement motivation in adolescence and self-esteem thus was hypothesized as having a correlation with achievement motivation.

High stress and anxiety also hinders an individual’s achievement motivation. So does negative mood make an individual not perform his task up to an optimal level. Singru(1972), Choski(1975), Singh & Kaur (1976) reported a low negative correlation between need achievement and anxiety. Kamat (1981) indicated low positive correlation between self-concept and academic achievement. Khan & Hassan(1983) did notice that high anxiety group revealed a sense of despair and fear of failure, but the low tension group seemed to hopeful of striving towards a better future. Self-concept is influential in self-relevant information processing, affect regulation and motivational processes (Markus, & Cross, 1990), thus revealing a relation among negative mood, achievement motivation and self-esteem. Factors such as success and failure, competence and power, helplessness and hopelessness, which are related to achievement motivation, are likely to show their effect on an individual’s mood and self esteem and may increase or decrease his anxiety and stress levels too.
There is no correlation seen among achievement motivation scale and other dependent variables used in this study, perhaps because other factors associated with achievement motivation have a higher assessment value for its interrelation dominance. The achievement motivation scale reflects other factors as its predictors or mediators, which may be the reason for this scale not being correlated with other dependent variables in this study. Studies disclose that achievement motivation is affected by home environment and parent child relationship (Kaushik & Rani, 2005). Singhal & Mishra (1990), Mishra & Agarwal (1985) suggested that achievement motivation should be defined in terms of subjective purpose rather than overt behaviour and review it in terms of ecocultural and developmental perspective. Achievement motivation has been associated with socio economic advantage and academic performance (Schultz, 1993).

It is seen that the social familial background, intelligence and personality of children and adolescents have been a contributing factor in their status in society, educational attainment and social competence which are associated factors of achievement motivation (Classidy & Lynn, 1991). Higher achievement and motivation have been reported of being linked to parent attachment (Learner & Kruger, 1997), parent involvement (Ginsburg & Bronstein, 1993), parent autonomy support (Grolnick, Ryan & Deci, 1991) and teacher autonomy support (Wentzel, 1997).

Achievement motivation has been closely related to other factors such as attributional style regarding success and failure, dominance, work ethic, which are also predicting variables for educational achievement.
(Weiner, 1986). High achievement motivated adolescents work better for success in competitive exams and show more ego defense responses (Chowdhry, 2000). High achievement motivated girls are better adjusted emotionally, socially and educationally, are sensitive and intelligent (Sewani, 2000). Kaur (2000) revealed that high need achievers also have a tendency to hope that time and circumstances will solve frustrating problems. Perceived competence (Harter, 1981), and perceived autonomy support (Grolnick & Slowiaczek, 1994) have revealed to affect adolescents achievement motivation.

6.3 Efficacy of yoga therapy for curtailing state anxiety, trait anxiety, test anxiety and stress

Yoga has been defined as a methodized effort towards self perfection of one’s latent potentialities (Aurobindo, 1955), as a science of mental control (Udupa, 2000) and also as a science of individual’s well being harmonizing the mind and the body (Sinha, 2002).

The present study reveals a significant difference among the Arts and Science treatment and control groups post adjusted scores of state anxiety, trait anxiety, test anxiety and stress inventories as a result of the intervention (Table 5.7, 5.12, 5.17, 5.22).

The pre to post score changes showed a significant decrease in the post scores of the treatment groups of both Arts and science after receiving yoga therapy on state anxiety (Tables 5.9, 5.10), trait anxiety (Tables 5.14, 5.15) and stress inventories (Tables 5.24, 5.25). A significant pre to post
score decrease has been seen for the Science treatment group on their test anxiety inventory score. Whereas even though a decrease in the pre to post scores has been seen for the Arts treatment group on the test anxiety inventory it is not significant (Tables 5.19,5.20).

Yoga therapy has helped the treatment group adolescent female subjects to feel calm, secure, rested, pleasant, contended and self-confident. It has also been effectual in making them feel less anxious, nervous, upset or tensed on the measures of the state anxiety or their feelings reported at that moment. The treatment group subjects have also shown a decrease in their general worry, in dealing with the difficulties and overcoming them and not exhausting quickly. Yoga has also helped them in being a more steady person, feel happy, cool and collected on their trait anxiety measures.

With regard to their test anxiety the treatment group subjects have been more receptive to yoga therapy revealing that they are able to give tests without much tension and worry, fear of failure or performance and undue tension regarding the marks they would score. Though it is seen that the Science subjects have shown more receptivity to the yoga therapy for the test anxiety inventory. Yoga has helped the treatment group female subjects to deal with stress effectively helping them to be tolerant, being able to search for themselves, feel valuable and not worthless, sleep well and manage their hectic schedule. It also helped them in relieving headaches, backaches and strained eyes.
There are a number of studies, which suggest the role of meditation in reducing stress (Goleman & Schwartz, 1976; Linden, 1973; Patel, 1993). Yoga including asanas, pranayama and kriyas has showed effective decrease in anxiety and neuroticism (kocher, 1972). Meditation has also shown decrease in the levels of trait anxiety and increase in measures of attentional absorption as a result of increase in the time of meditation (Davison, Goleman & Schwartz, 1976).

On the measures of Beck Depression Inventory, State Trait Anxiety Inventory, Profile of mood states and morning cortisol levels. The short term Iyengar yoga course revealed significant decrease in self-reported symptoms of depression and trait anxiety. Changes in the acute mood, with decreased levels of negative mood, fatigue and higher morning cortisol levels were seen following yoga (Woolery, Myers, Sternlieb & Zeltzer, 2004).

Campbell and Kathleen (2004) in a yoga program involving pranayama, asanas, yoga nidra and meditation revealed low average levels of symptoms of depression, anxiety and stress after the yoga was performed. The asanas, yogic kriyas and meditation helps to control anger, eating habits, distraction of mind and stress. Study involving meditation, pranayama, surya namaskar, vajrasana, omkar, sudarshan kriya has also shown decrease in stress levels (Jain & Sharma, 2005).

Yoga nidra has shown significant decrease in the stress levels and has also increased the general well being. It has also been suggested for efficient learning and in decreasing anxiety and stress (Kamakhy, 2004).
Yoag nidra has shown significant reduction in trait anxiety and hostility (Bhushan & Sinha, 2001).

Yoga involves smooth, rhythmic breathing (pranayama), postural exercises (asanas) and meditation. Relaxation is a prime aspect while performing yoga. It is only through a composed outlook that a person can perform yoga with ease and comfort such that he is rid of anxiety and stress pertaining to the mind and the body. Relaxation in yoga is brought about by not only working on the muscular tension but also progressively working on relaxing oneself completely through progressive deep breathing, concentration, release of muscular tension and relaxing with immense awareness of the slightest release of tension or relaxation felt.

Rao (2001) mentions that psychotherapy uses many techniques, which have close affinity with meditation. Benson, Greenwood & Klemchuk (1975) had revealed that relaxation-training therapies included progressive muscle relaxation, guided imagery, transcendental meditation and other forms of meditation including yoga and hypnosis.

Research studies have revealed that relaxation training is the most appropriate therapy for alleviating anxiety (Kumariah, 1979; McMilan & Lynn, 1986), and has been successfully employed in various problematic behaviours such as in case of study anxiety and insomnia (Richardson & Suinn, 1973). Anxiety management training where relaxation plays a major role has had effective role on the measures pertaining to general health, anxiety and autonomic perception (Lindsay, Gamsu, McLaughlin, Hood & Espie, 1987).
Excessive stress can be most successfully dealt with neuromuscular relaxation which further affects test scores. Relaxation is also seen to help students who find it difficult to catch up with stress of college life and helps them in freeing themselves of previous tensions (McCreary, 1982; Whitehouse, Dinges, Orne, Keller, Bates, Baurer, Morahan, Haupt, Carlin, Bloom, Zaugg & Orne, 1996). Self-control through muscle relaxation is best suggested for coping against stress and the most relaxation finds its true meaning and significance in yoga.

Stress and strain in life extensively affects not only an individual’s daily life activities, but also makes him prone to, or a victim of disease. Not being able to cope effectively with stress, anxiety and its other related components is a common problem of today’s individual. Stress not only affects a person’s mood, self-esteem, and academic performance but also leads to psychological, behavioural and cognitive inconsistencies adversely affecting one’s social life too. Stress and its related problems arise out of a person’s complicated and undisciplined lifestyle.

The physiological variables related to stress and anxiety have not been dealt with in this present study as dependent variables and the effect of yoga therapy has not been seen on these physiological constructs. However on presenting the conceptual framework and further reviewing literature on the factors related to the physiological causal and effectual reasons pertaining to anxiety and stress it can be concluded that the physiological
changes in the neurohumors to hormonal secretions to glandular and cerebral functions all play a major roles.

Further also reviewing the numerous studies done to see the effect of yoga in curing anxiety and stress giving reasons and result outcomes related to regulating these secretions and curing the psychosomatic diseases and thus relieving stress and anxiety serves as a source of the effectual cures that yoga offers to prevent and regulated imbalances ultimately leading to cure anxiety and stress.

Stress and anxiety has emotional, physiological, psychological, cognitive and environmental aspects related to them, be it situational, state, test or trait anxiety or else general stress. Just as psychosomatic disorders are related to these variables so are psychosomatic therapies such as yoga. Not only does yoga help an individual relieve himself from stress and anxiety but it also works therapeutic wonders on their related disease outcomes such as hypertension, increased endocrine and hormonal secretions, heightened autonomic activity, cardiovascular diseases, panic disorders, ulcers and many more (Udupa, 2000; Ananda, 2003; Iyenagar, 2004).

Yoga practice has also shown reduction in tension headaches and lower backaches (Kalpana, 1990; Dharamprakash, 1990). Studies have shown significant decrease in muscle tension and skin conduction among those complaining of tension headaches by using vipasana meditation (Sharma, Kumaraiah, Misra & Balodhi, 1990). Stress is one of the factors leading to muscular skeletal disorders such as backaches, headaches, eyestrains and shoulder tensions (Gura, 2000). He believes that yoga is an
ancient form of exercise that can reduce stress and relieve muscular tensions. As psychic stress is an important cause of headache and migraine, studies have shows that meditation, biofeedback and yoga helps people overcome headaches (Udupa, 2000).

There has been evidence that practice of transcendental meditation helps lower the metabolic rate. Pranayama has shown a significant decrease in the levels of anxiety and shavasana has shown decrease in pulse rates and blood pressure (Wallace & Benson, 1972; Nagarathna, Horia & Nagendra, 1984). Studies have revealed that the practice of shavasana meditation, control of breath, muscle relaxation all show significant results in controlling blood pressures (Patel, 1973, 1975, 1977; Udupa, 2000). Om recitation at lowered pitch leads to low heart rate, respiration rate and blood pressure (Gore, 1997). Yoga has also been capable of lowering body temperature and controlling brain waves (Coleman, 1988).

The gradual introduction of retention and bandhas in the practice of pranayama helps in training and strengthening the autonomic nervous system (Gore, 2003). There is also a reduction seen in plasma catecholamines, serum lipids and cholesterol and blood sugar. Meditation has lead to increase in blood acetylcholine levels with an increase in alpha activity further increasing mental tranquility (Udupa, 2000).

Studies have shown that shavasana enhances one’s ability to respond to stressful stimuli and increased heart rate variability signifying an improved cardiac modulation by autonomic system (Madanmohan, Vijayalakshmi, Udupa, Bhavani & Prakash, 2002). It is revealed that the
effect of stress reduction with transcendental meditation lowers the lipid serum peroxide levels (Schneider, Nidich, Salerno & Sharma, 1998). The collective practice of yogic postures, pranayama and relaxed meditation has shown a marked reduction in the neurohumors and a slight increase of plasma cortisol indicating a better stress competence (Udupa, 2000).

In relation to anxiety and anxiety neuroses studies show that practice of yoga exercises and pranayama has helped patients get over all the symptoms feel better and confident. Relaxation exercises prescribed for somatization, anxiety and mild depression has also proved beneficial with about seventy percent patients showing improvement (Somasundaram, 2002). There is great evidence showing that yoga asanas have produced definite improvement among patients suffering from physical as well as psychosomatic ailments (Swami Ram, Ballentine & Ajaya, 1976). Meditation based learning program has shown to help coronary artery diseased patients improve their physiological and psychological distress and show substantial improvement in overall physical distress (Helene & Ford, 2000).

Yoga exercises have shown an overall significant improvement on variables of physical fitness such as cardiovascular functions, body fat percentage, abdominal strength, endurance and flexibility (Ganguly, Bera & Gharote, 2003). There has been significant improvement in those with attention deficit hyperactive disorder (Jensen & Kenny, 2004).
With these immense literature studies it is clear that a lot of research has been done on the effect of yoga therapy on the physiological constructs related to anxiety and stress but not much with the psychological constructs or variables.

6.4: Efficacy of yoga therapy for enhancing negative mood regulation, achievement motivation and self-esteem

(i) Effect of yoga therapy on Negative Mood Regulation and Self Esteem

The present study reveals a significant difference among the Arts and Science treatment and control groups post adjusted scores of negative mood regulation and self esteem inventories as a result of yoga therapy intervention (Tables 5.27,5.37).

The pre to post score changes showed a significant increase in the post scores of Science treatment group subjects only after receiving yoga therapy, for the negative mood regulation (Tables 5.29,5.30) and self esteem inventories (Tables 5.39,5.40). Whereas though an increase in the post scores were seen in the Arts treatment group scores for these two inventories the change was not significant. This to some extend reveals that Science treatment group subjects have been more receptive to the yoga therapy workshop especially in case of the pre to post score changes seen in the test anxiety, negative mood regulation and self esteem inventories.
Yoga therapy in the present study has been able to help the treatment group female subjects regulate their negative mood by feeling that they are able of doing something to feel better, feel okay on thinking of more pleasant times and understand why they are feeling bad. It also helps them in finding some thing good in the troubled situation, calm them down, find a way to relax and looking out for some change.

Yoga has also been useful in developing the self-esteem of the treatment group subjects by helping them like themselves for what they are. It has been effective in helping them make up their mind without too much trouble and get use to novel thing easily. Yoga has enhanced their opinion of their own selves and feels encouraged with whatever they are doing. Though it must be mentioned that the Science treatment group subjects showed more receptivity towards yoga therapy with regard to both negative mood regulation and self esteem inventories.

Rajayoga involves behavioural, psychophysiological control, self-analysis, meditation, change in cognition and consciousness. Yoga could be used for modifying affected behaviour, promoting mental health and achieving higher states of consciousness (Balodhi, 1986).

Studies have shown that meditation and yogic exercise have ad effective results on personality further showing decline in tension and emotional maturity (Kolswalla, 1978). Yoga training program involving yogic postures, pranayama, shavasana, meditation and om chanting has produced significant improvement in the positive approach toward life, self concept, changing negative approach, ability to handle problem situations
and in the development of perseverance and tenacity (Vinod, Vinod & Rajguru, 1998). Physical and mental activeness has also been maintained due to practice of asanas, yogic kriyas and meditation (Jain & Sharma, 2005). Yoga helps one to control emotions effectively (Sequeria, 1994).

There has been seen a decrease in anxiety level, and increase in the locus of control showing increased self and inner control (Sahasi, Mohan & Kacker, 1989). Yoga training program has shown statistically significant changes in scores of attitude and neuroticism scales. The value tests further have shown yoga to enhance social, religious and aesthetic values (Bhogal, Oak & Bera, 2002). Woolery, Myers, Sternlieb & Zeltzer (2004) observed changes in the acute mood, with subjects reporting decreased levels of negative mood and fatigue following yoga.

The referred studies give an inferential view of the effect of yoga therapy on the aspects related to negative mood regulation and self-esteem. These help in deriving assumed conclusions such as yoga’s role in changing affected behaviour, controlling emotions effectively, observed changes in the acute mood or subjects decreased levels of negative mood could be associated with negative mood regulation. The studies further reporting promotion of mental health, significant improvement in the positive approach toward life, self concept, changing negative approach, ability to handle problem situations and developing perseverance and tenacity, increase in the locus of control showing increased self and inner control and fatigue on practicing yoga could be associated with self esteem.
Diverse studies have been carried out on the use of yoga therapy for reducing anxiety and stress using psychological as well as physiological related variables. Whereas extremely few studies have been carried to know the effect of yoga therapy on the psychological variables such as negative mood regulation or self-esteem.

(ii) **Difference on Negative Mood Regulation for the control groups**

In order to see the effect of yoga therapy, the control and treatment subjects sample taken for the present study involved students of one institute such that the schedule of working, work hours, schedule of tests, exams and curricular activities existed somewhat together for the subjects. Such that frequently, perhaps chance factors for differences in results could be accounted for, in terms of subject chosen, class and individual differences.

The present study has shown a significant decrease in the pre to post scores for the Arts and Science control group subjects for the negative mood regulation inventory. This reveals that one-month previously the control groups had shown higher levels in their capability to regulate their mood as compared to their post scores without any treatment being given. This lowered efficiency of control groups in regulating their negative mood could have been a result of a lot of activities being carried out in that particular month. Everyday interaction with the yoga therapy subjects did reveal the stress that they were going through because of regular tests, severe preparation for the twelfth board exams, annual day function rehearsals,
project works and of course personal pressures and hassles faced on daily basis.

This particular result of the control groups showing a significant deteriorating difference in their negative mood regulation and not other variables such as anxiety and stress due to varied reasons could be accounted for a common notion that during adolescence mood fluctuations are very frequent.

(iii) Effect of yoga therapy on Achievement Motivation.

The achievement motivation scale did not show any significant correlation with the other variables used in this study such as state anxiety, trait anxiety, stress, negative mood regulation and self-esteem (Table 5.3). Gupta (1982) had also failed to observe any relationship among anxiety and achievement motivation. Though this scale was selected for the study as a number of studies did show an interrelationship among achievement motivation, stress and anxiety (see 6.2(ii)). It was also presumed that, as anxiety and stress, would have an interactive relation so should the yoga therapy have an enhancing effect on achievement motivation with the reduction in anxiety and stress of the adolescent subjects.

The present study reveals no significant difference among the Arts and Science treatment and control groups in their post adjusted scores on achievement motivation scale (Table 5.32). There is also no significant difference seen in their pre to post scores for the achievement motivation scale (Tables 5.34, 5.35).
A clam and relaxed individual not only can handle stress and anxiety better but even think more rationally and creatively. Yoga on helping individuals relax and get rid of fatigue may help them perform better and thus achieve high in their tasks. Schmidt-Wilk, Alexander & Swanson (1996) revealed that the transcendental meditation technique appeared to improve employee health, well being, job satisfaction, efficiency and productivity in turn influencing organizational climate, absenteeism and financial performance. Adolescents for whom achievement motivation is primarily associated with school performance, grades or marks in their school tasks be it tests, exams or other activities may be enhanced if they control their anxiety and stress regarding the state they are in or the traits they possess or else the anxiety that they face during tests.

Increasing the adolescent’s energy levels and refueling them with greater cosmic energy everyday through yoga may help them in not only getting rid of their anxiety and stress but also achieving higher in their tasks. Hall (1999) employing the mediation process consisting of natural breathing techniques, relaxation and attention focusing techniques revealed results showing significant increase in the meditation group in their overall performance of 56 African American college students. Yoga thus may help in enhancing performance more than affecting the want, need, desire or motivation to achieve.

Perhaps the role of yoga could not be seen in this study because wanting to achieve or being motivated to achieve is more of an outcome of what one thinks he would want to be in life, his aspirations and his
achievements that he has already attained. This achievement motivation scale involves factors related to an individual describing himself as ambitious, preparing little for his exams, working hard at a job and working at job rather than daydreaming. It also has statements which involve facts such as great achievements of others have made one feel small, or else if the individual has tried to model his life on that of another successful person. There are statements revealing an individual's own comparison to others. Yoga has not been able to change such perspectives associated with achievement motivation.

Achievement motivation must be defined in terms of subjective purposes rather than overt behaviours and must involve eco cultural and developmental perspectives (Misra and Agarwal, 1985; Singhal & Misra 1990). Studies have also reported that the adolescent's achievement motivation is affected by home environment and parent child interaction and relationship (Learner & Kruger, 1997; Wong, Wiest, Cusick, 2002; Kausik & Rani, 2005).

With regard to adolescents, general findings have shown that fewer restrictions from parents lead to high level of achievement motivation (Baumrind, 1971; Ojha, 1972; Grelow, 1973). It has also been seen that social, psychological, familial and environmental variables act as moderators to achievement motivation. Positive evaluation of the child by his parents has resulted in high achievement motivation (Mittal & Mittal, 1976).

Studies have revealed that high need achievement individuals have the tendency to hope that time and expected circumstances will solve
frustrating problems (Kaur, 2000). In a study those with high need for achievement were found to be more intelligent, emotionally stable and self disciplined. Achievement oriented girls were found to be better adjusted socially, emotionally and educationally too (Sewani, 2000). Thus it can be seen that achievement motivation has been associated with aspects such as parent child relationship, fewer restrictions of parents, home environment, intelligence, emotional stability and self-discipline.

The theoretical explanations associated with achievement motivation however include failure and success, attribution, competence and power, agency and communion, and good academic achievement throughout. Individuals high in agency are more capable and able to succeed at new tasks, whereas, those who are high in communion are viewed as followers needing more guidance (Bem, 1974). Baumrind (1991) had suggested an optimum level of competence and psychosocial maturity where an individual is capable of leadership and decision-making. Where the individual possesses well-developed, self-regulatory and monitoring abilities and is able to operate constructively in his everyday life.

Thus the variable, achievement motivation has not shown any related, or effective result due to the intervention, conceivably due to the above stated factors, which may be related to it, and is higher in intensity as compared to the variables undertaken in this research. Yoga being a science of developing the individual’s potentialities and serving as the aid of enhancing the well being of an individual has not been effective in enhancing achievement motivation.
CONCLUSION

Adolescence from the time of being called the age of ‘storm and stress’ Hall (1904) to being referred to as the ‘terrible teens’ Mythili, Bharthi & Nagarthna (2004) has been of much concern for the parents, teachers and the psychologists. The troubles in this age seem to be taking a more serious turn with the adolescents not being able to deal with their anxiety, stress, negative mood, achievement motivation and self esteem.

Anxiety and stress seems to escort the adolescents right from their daily routine hassles to major life events, more so in all that they do and this is hampering their life and youth completely. Their inability to regulate their negative mood, lack of achievement motivation and low self-esteem deprives them of not only leading a healthy and happy life but also engaging in adverse behaviours involving drug and alcohol abuse.

Though the problems could be actually occurring or else some may be created, adolescents have all the reasons to be stressed out. With the immense transitions taking place in this period the adolescents need to learn a sense of self-control and relaxation in order to deal with the fast moving life and innumerable problems that they are a part of. Yoga is that therapy which has come from long past Indian history as being the essence for the Yogi’s life to, today being the essence of every normal individual, young or old around the world.
The present study reveals that there is no difference seen among the Arts and Science adolescent females in their state anxiety, trait anxiety, test anxiety, stress, negative mood regulation and self-esteem. Youth of today is primarily seeking fame and success in all that they do. Pressures felt by them are equal in today’s society and time. There is so much of competition and all wish to be better than the others. Careers are no more a long awaited prospect and the adolescents just after twelfth are drawn towards earning and making their career be it a Science or else an Arts student. There was however a significant difference seen in the Arts and Science female adolescent subjects with regard to their achievement motivation scores with the Science subjects showing higher achievement motivation. This could be due to the fact that Sciences immediately on entering their eleventh class begin to prepare for their PMT entrances and have a more focused goal to achieve and anticipate.

The present study also revealed that there is high correlation among the state anxiety, trait anxiety, test anxiety, stress, negative mood and self-esteem of the adolescent females students. Thus showing that there is a high positive correlation among state anxiety, trait anxiety, test anxiety and stress of the female adolescent students. Further state, trait, test anxiety and stress showed a high negative correlation with negative mood regulation and self esteem. All that exists does not do so by itself. The variables thus have shown to exist not by themselves but more so as a multicomponent construct affecting each other. Achievement motivation in this study has not shown any significant correlation with the other dependent variable used in this study.
Yoga is that multidimensional therapy which has made a mark for itself proving itself in the field of science and technology today. With the problems of adolescents being muticonceptual in nature, the therapy to resolve the issues also needs to be multifaceted. In the present study yoga therapy has been effectual in curtailing the state anxiety, trait anxiety and stress of the Arts and Science adolescent female subjects. With regard to the curtailing the test anxiety and enhancing the negative mood regulation and self-esteem a significant effect of yoga therapy is seen only for the Science adolescent females.

Though there has been a decrease in the test anxiety and an increase in the negative mood regulation and self esteem scores of the Arts subjects as well, but the change is not significant. There is however no significant effect of yoga therapy seen on the achievement motivation scores of the adolescent female students.

On explaining what yoga is Bhavanani (2004) says “yoga is the science and art of quieting the subconscious mind, a way of life, skill in action, union of thought, word and deed, integration of our personality at all levels, the science of conscious evolution and the method to attain, as well as the state of emotional and mental equanimity.” Yoga therapy thus authenticates itself as an effective means of changing the diverse complications that an individual is confronted with. The individual self, being the target of the stressors has to be strong and tough such that he is able to meet the challenges he faces. Yoga is that therapy which helps an individual to change, such that the change in his own self will make him perceive the world and himself better.

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SUGGESTIONS FOR FUTURE RESEARCH

In quest of finding answers to the present research study there are several queries that have risen on the phase of its conclusion. On viewing the queries propounded by the present study following recommendations are proposed for future research.

1) Due to time restrain of the institute the yoga therapy could not be carried out for a longer time duration, thus the efficacy of yoga can be seen by performing it for a longer time duration and comparing its effect on time duration bases.

2) The yoga therapy workshop in the present study has a collective construct involving pranayama, sukhsham vyam, mudras, asanas and meditation. A study taking up these constructs separately could help in finding out the effect of each of them individually.

3) This present study has only dealt with female adolescent students, thus a research which takes a comparative or collective approach of males and females separately or collectively would reveal yoga’s effect on the two genders.

4) Not much research has been carried out to know the efficacy of yoga therapy using psychological concepts and scales. Thus future research, employing the psychological scales on self-esteem, mood, personality, behaviour, cognition, motivation and perception would serve as bases of comparison for the present study.

5) The present study has a small sample from which the Arts and Science student comparison cannot be generalized with regards to the dependent variables. Thus future research can make use of the depended variables and find out if there is no difference among the
Arts and Science students with respect to anxiety, stress, negative mood regulation, self-esteem and achievement motivation.

6) The Arts and Science female students in this research have shown difference in their receptivity towards yoga therapy on some of the scales such as test anxiety, negative mood regulation and self-esteem. Future study resolving the fact whether the Science and Arts students actually differ in their receptivity towards yoga therapy would be helpful in supporting the present investigation.

7) Achievement motivation scale in this research has been used assuming that this variable has a link with the other dependent variables, which did not turn out to be significant. Therefore research on its other correlated variables (academic achievement, parent child relation) or the used dependent variables are recommended.

8) The adolescent female students, for this achievement motivation scale has not shown any effective change due to the yoga therapy. Thus a study, which views the effect of yoga on achievement motivation, or other related motivation scales, would put some light on this issue.

9) The present study could explore the effect of yoga therapy on a few aspects related to adolescent’s lives. Extracting more efficacious evidence of yoga therapy’s effect on other factors related to adolescents is suggested for.

10) In the present study, only the yoga therapy has been used to see its effect on the various dependent variables. Research study revealing a comparative study, of drawing out a comparison between yoga therapy and other therapies, using the dependence variables of this study may help to find out which therapy is more effective with adolescents.