Review of Related Literature

- Theoretical Framework of the Variables
- Studies on Academic Stress
- Studies on Bibliotherapy
- Studies on Muscle Relaxation
In this chapter the investigator made an attempt to explore the theoretical aspects of Stress, Academic Stress, Bibliotherapy and Progressive Muscle Relaxation for the study. Investigator scrutinized various studies conducted in the educational settings related with these variables to have a comprehensive idea about the relevance of these variables in the present educational arena. Hence this chapter comprised of two sections, the theoretical background of the variables and up-to-date studies done by other researchers.

**Theoretical Framework of the Variables**

The theoretical aspects of Stress, Academic Stress, Bibliotherapy and Progressive Muscle Relaxation are presented in this section.

**Stress**

The concept of stress was first introduced in Life Science by Hans Selye in 1936. The word ‘stress’ was originally derived from Latin word ‘Stringere’ a word need to describe hardships. According to Selye (1956) “any external event or any internal drive which threatens to upset the organismic equilibrium is stress”. Weiten and Llyod (2003) defined stress as “any circumstances that threaten or are perceived to threaten one’s well being and thereby tax one’s coping abilities”.

Transactional theory of stress focus on the cognitive and affective aspects of an individual’s interaction with their environment and the behavioural coping styles they may adopt or lack. One of the most well
known theories is that of Richard Lazarus, who defined stress as resulting from an imbalance between demands and resources. Lazarus asserts that a person evaluates a particular incident, demand or an ongoing situation. This initial evaluation is primary appraisal, this involves continuous monitoring of environment and analysis of whether a problem exists or not. If a problem is recognized the stress response may be activated and unpleasant feelings and emotions may be experienced. In the next stage, secondary appraisal follows when the person evaluate his or her resources and options. Once recognized and if the demands are greater than the resources then only does stress occur. If the resources are greater than the demands the person may view the situation as a challenge and not as the stress scenario. If the person is too inexperienced to recognize that a particular problem exists it would not be considered as a stress scenario. It is the subjective and not objective assessment of any scenario that may trigger the stress response (Lazarus & Folkman, 1984).

According to Selye (1976) “response has universality; that is all stimuli above perception threshold can trigger similar psychological stress responses across different species and across situations”. Sarafino (2002) also gave description about this universal cascade of events, which includes:

1. “Environmental stimuli that are judged to be of subjective importance trigger cortical activation that sends chemical messages to the hypothalamus, where

2. They stimulate the production of corticotrophic releasing factor (CRF) and other chemical messengers that, in turn, activate two distinct tracks of bodily reactions.
3. In the first track (also commonly referred to as the sympathetic adrenal medullary axis), these messengers feel information forward to the pituitary gland which

4. Changes the chemical structure of the messengers and release adrenocorticotropic hormone ACTH into the bloodstream.

5. When ACTH reaches the adrenal glands, it initiates the production of cortisol, which in turn, increase metabolic rate. Cortisol exhibits the function of phagocytes and lymphocytes in the immune systems (i.e., it serve as a messenger for needed adaptations of the immune system).

6. On the second track (commonly referred to as the hypothalamus pituitary axis), chemical messengers leave the hypothalamus and trigger electrochemical changes that advance as signals down the brain stem and the spinal cord toward the adrenal glands.

7. At the level of the adrenal gland this activation leads to release of epinephrine, which supplies extra glucose to muscles and brain. Epinephrine also increases suppressor T-cells and decreases helper T-cells, thus revealing a second connective pathway of stress reactivity to immune function.

8. The adrenal glands also release norepinephrine, which then speeds up heart rate and increase cardiac output and blood pressure.

9. Ultimately these activities and their results are fed back to the hypothalamus, which serves as the “master controller” of this whole process.

This cascade of physiological response to challenge involve intricate interplay and feedback loops of biochemical and electro physiological processes that regulate autonomic nervous, endocrine and immune system
activity. Within the autonomic nervous system, activation of the sympathetic branch (viz., release of ACTH) prepares organs for the fight-or-flight response by dilating pupils and brochi, increasing rate and force of the hearts pumping action, construction of blood vessels, secretion of epinephrine and decreasing peristalsis. An important physiological control function is assigned to the parasympathetic branch of the autonomous nervous system that opposes these actions and is functionally designed to facilitate recovery (Linden, 2005).

Always more focus was given on negative aspects of stress by researchers. Researcher shows that positive emotion also occurs during periods of stress. Selye (1974) divided stress into eustress and destress. Where stress enhances function, it may be considered eustress and persistent stress that is not resolved through coping or adaptation, deemed destress. As explained by Nixon, 1979 (as cited in Maymand, Shaksian & Hosseiny, 2012) stress can manage and facilitate good performance to a level. This is illustrated in figure 1.

Figure 1. Stress response curve
As shown by the graph the performance level increases when stress management is effective. Stressors such as pressure and demands can facilitate better stress response and then higher levels of performance. The curve shows that as the level of stress increases the performance level also increases to the point of eustress or healthy stress. Near the point of fatigue an identified area called comfort zone indicates the ranges of stress level that can absolutely manage and facilitate good performance level.

People struggle with various stressors every day, most of them come and go without leaving any enduring imprint. Human response to stress is complex and multidimensional. Although stress can have beneficial effects, when stress is severe or demands pick up, stress may have long lasting effects. These effects are often called ‘adaptational outcomes’. They are relatively durable consequences of exposure to stress (Weiten & Llyod, 2003). Most of the theories of stress assume that stressful events have a ‘cumulative’ impact (Seta, Seta & Wang, 1991).

**Academic Stress**

Performing the role as a student is highly stressful. There are various factors that induce stress for the students. “Academic problems are one of the most common reported sources of stress for adolescents as they spend considerable amounts of time within school environment” (Tan & Yates, 2011).

Academic Stress is the product of a combination of academic related demands that exceeds the adaptive resources available to an individual. It is
widely acknowledged that a student’s academic achievement and academic ability depend on both internal and external factors such as proper study habits, intelligence, educational aspiration of self and parents, medium of instruction and so on. If situation are not conclusive for learning, they may lead to academic stress (Kadapatti and Vijayalaxmi, 2012). Poor performance of students is a result of various causes and one among which is Academic Stress. Academic Stress is the result of various other sources which should be identified and remedied to develop a healthy internal and external environment for the student for better performance. “The self identity stress, interpersonal stress, future development stress and academic stress can jointly predict student academic stress” (Lin & Huang, 2014).

According to Frydenberg (1997) “Adolescence is that period between childhood and adulthood when the individual is confronted by a series of developmental hurdles and challenges. First there are normative tasks such as development of identity, achieving independence from the family while staying connected and fitting into a peer group. Second there are transitions from childhood to adulthood which are characterized by physiological changes in the body and by cognitive development”. Considering the academic arena there are several stressors that create stress for the adolescent students. From the various investigations conducted it has been found that various problems beyond academics create academic stress for student which lead to poor academic achievement and related affects which when cumulated leads to psychosomatic problems.
Suldo, Shaanessy and Hardesty (2008) suggest that “psychological models focus on the concept of perceived stress, which refers to interactions between an environmental precipitant (external stress); the physiological reactions of the body (distress); and a person’s cognitive, emotional and behavioural response to this interaction. Stress is perceived when an external event causes aversive physiological and cognitive distress in an individual that exceeds his or her emotional and behavioural repertoire designed to negate the harmful effects of external stressors”.

Environmental or contextual locations of youth can be classified under four major spheres of influences; the school, the home, the peer group and the broader community with its specific characteristics. The school environment exerts an important influence, where the characteristic of school type, location, organization and curriculum offered are important considerations. The home environment and family relationships also exert an influence. The impact of parents, the number and characteristics of siblings and general home environment all play their part in producing stress. The peer group made up of friends and comrades from the school or community setting also create stress for adolescents (Frydenberg, 1997).

The investigator went through different situations which act as stressors for the adolescent students and from them investigator identified and selected certain stressors related to personal, school, familial and peer relations which add to students stress related to academics.

**Stress creating personal factors.**

How a person perceives the stressors and react to it decides whether the stressor create stress for the individual. Therefore there can be numerous
factors that create stress for the individual. In this study, the major factors identified by the investigator are (i) lack of self-efficacy, (ii) lack of personality hardiness, (iii) lack of mastery motive and (iv) lack of optimism.

*Lack of self-efficacy.*

General self-efficacy is one’s competence to cope with a broad range of stressful or challenging demands (Luszczynska, Scholz & Schwarzer, 2005). One of the theoretical constructs commonly associated with efficacy approaches is that of self-efficacy, a term developed and reported by Albert Bandura (1997, 1977 & 1986). The self-efficacy approach highlights the way in which individuals perceive their capacities rather than the recording of actual behaviour. It focuses on beliefs that an individual holds about his/her or capacity to deal effectively with a particular situational demand. Self-efficacy is the hallmark of people who judge themselves as able to handle situations that would otherwise be intimidating or overwhelming. Such people believe they have an ability to control anxiety and exercise control over potential threat.

Developing self-efficacy or belief in one’s own abilities to deal with stress is of considerable value (Wiedenfeld, Bandura, Levine, O-Leary, Brown, & Roska, 1990). When individual feels that they are gaining self-efficacy over a stressor the effect of stressor on the immune system decreases. Thus individuals feelings that they could exercise self-efficacy and control a stressor reduce the negative effects of stress on the immune system. They also supported the protective function of Self-efficacy in reducing the body’s response to stress and also that self efficacy was found to moderate the relationship between stress and immune system response. They also suggest
that individual’s perceptions of their self-efficacy moderate their immunological responses. In particular, the effect of stress on immune system decreases when individuals feel that they are gaining self efficacy over a stressor, thus self-efficacy appearing to be a protective function in individual’s response to stress (Roddenberry & Renk, 2010).

**Lack of personality hardiness.**

Hardness is a personality style associated with superior resistance to stress. Persons with hardiness have a sense of personal commitment to self, work, family and other stabilizing values. They feel that they have control over their lives and their work. Such persons have a tendency to see life as a series of challenges rather than as a series of threats or problems (Coon, 2004). Research studies with a variety of population had demonstrated that hardiness appears to protect against stress and predict healthy functioning and hardiness describes a generalized style of functioning characterized by a strong commitment, control and challenge (Bartone, 2000).

According to Hystad, Eid, Laberg, Johnsen and Bartone (2009), the critical assumption of hardiness theory of stress resiliency is that the hardy personality type is not as easily threatened or disrupted by ordinary stressful aspects of human condition. From a theoretical point of view, a hardy undergraduate is expected to react to the new settings with a sense of genuine interest and purpose, appraise the academic requirements as challenging obstacles that can be overcome with dedication and committed endeavor, and apply the necessary amount of effort to succeed and adjust to the academic environment.
Lack of achievement motivation.

“Achievement motivation is a person’s tendency to strive for successful performance, to evaluate her performance against standards of excellence, and to feel pleasure at having performed successfully” (Hetherington & Parke, 2003). Motivational research has proposed that achievement has important role in subjective well being (Miller, Connolly & Maguire, 2013). When the personal goal orientation are congruent with motive disposition, they are associated with high emotional well being and vice versa. Students who have mastery-orientation are interested in self-improvement and try to compare their current level of achievement to their own previous achievement. Studies shows that motivation not only influence the effectiveness of learning, but that being intrinsically motivated is also associated with better well being and an increased amount of satisfaction (Ryan & Deci, 2000). Variations in achievement motivation and performance are often related to a child’s emotion and opinion of himself as a person and lowness in short to self esteem. Researchers identified two categories of achievement motivation, mastery oriented and helplessness. Children with mastery oriented achievement motivation maintained or improved their level of performance despite of their failure or some problem. They expressed neutral or even positive emotions at failure (Diener & Dweck, 1978).

Lack of optimism.

Optimism is essentially a habit of mind about remaining enthusiastic, hopeful and confident (Frydenberg, 1997). It s the word derived from Latin word optimum. Assessment of incoming freshmen on a range of personality
factors like optimism, self control, locus of control etc revealed that freshmen who scored more on optimism before entering college were reported to have lower levels of psychological distress. Over time it was found that more optimistic students were found to be less stressed, less lonely and less depressed than their more pessimistic peers. This shows the strong link between psychological well-being and optimism (Scheier & Carres, 1992). Optimism is characterized by positive expectation of the future and has been linked to the process of coping with stress. Optimism has a profound impact on one’s expectancies and therefore can serve as a useful predictor of behaviour. It is “found that optimism serves as a moderator between stress and psychological well being and also has a direct impact on psychological adjustment” (Krypel and King, 2010). According to Chang, Rand and Strunk (2000), optimists may be less likely to experience emotional exhaustion and physical symptoms related to burnout.

Stress creating familial factors.

Several studies investigated the relationship between an adolescent’s coping strategies and their experience of life in the family. The way in which the family is perceived by adolescent may not be a view completely shared by other members of the family (Frydenberg, 1997). Parental support, interaction between parents and children, study facilities at home and parental involvement in studies add to students stress. The socio economic status of the family is another important factor that creates stress for students. Family is an interpersonal social system held together by strong bonds of attachment, affection, caring and yet exercised control, approval and discipline on each other (Harvey & Byrd, 2000). Authoritative parents who are warm, involved
and responsive shows pleasure and support of child’s constructive behaviour. They consider child’s wishes and solicit their opinion and offers alternatives. Such parent sets standards, communicates with them clearly and enforces them firmly. They do not yield to child’s coercion, shows displeasure at bad behaviour and confronts disobedient child. Such children’s with authoritative parents become energetic and friendly, cheerful self controlled and self reliant, purposive and achievement oriented. They show interest and curiosity in novel situations. They show high energy level, maintain friendly relations with peers, cooperates with adults and is tractable. Such children cope well with stress (Hetherington & Park 2003). There are different family situations which create stress for students which lead to academic stress. In this study lack of parental support, lack of interaction with parents and children, lack of study facilities at home and lack of parental involvement in studies are considered.

**Lack of parental support.**

Lack of parental support in the studies of children affects the children and causes stress for them which leads to Academic Stress. According to Gonzales-Pienda (2002) “parental support criteria were developed according to six dimensions namely, Parents expectations about their children’s achievement, Parents expectations about their children’s capacity to achieve important goals, Parents behaviours that reveal interest in their children’s school work, Parents degree of satisfaction or dissatisfaction with their children’s level of school achievement, Parents level and type of help provided when their children do homework and Parents reinforcement behaviour of their children’s achievement”.
According to Chohan and Khan (2010), “the pivotal role of parents till continues as it has been recognized by the teachers and parents themselves that they are essential for complete development of the personality and career for their children. The children also seek emotional support from parents when they face some academic problems at school. Research shows that students develop sense of responsibility and better performance as they grow up. The extent and effectiveness of parental support depends on variety of reasons such as ethnicity, family income, home environment and their awareness about the importance of education”.

Parental emotional support was a protective factor that contributed to better mental health among children and important for academic achievement (Leung, Yeung & Wong, 2010; Ong, Phinney & Dennis, 2006).

**Lack of interaction with parents and children.**

Regarding the interaction or communication between parents and children it is striking that even limited pleasant interaction can provide a basis for development of positive self regard and helps in the development of vulnerability of resilience.

According to Frydenberg (1997) ideal family is one where

- Communication is positive and effective
- Adolescents receive strong support from parents
- Adolescents are free to express feelings and opinions
- Issues are discussed and conflicts raised
- Family plans are negotiated.
• Cooperation and trust exist between parents and adolescents.
• Parents can express concerns about likely consequences.

Problematic parent-adolescent communication is consistently associated with increase in a wide range of risky behaviour (Wang, Stanton, Li, Cottrell, Deveaux, & Kaljee, 2013).

**Lack of study facilities at home.**

Keeping away the emotional environment provided at the home, the physical as well as materialistic facilities provided for the children helps them in their studies. Lack of physical settings creates problems for children. Phillips (2008) suggested that young people are more aggressive due to disorderly homes, catastrophic breakdown of parenting, emotional choices and absence of love and care in their disorderly homes increasingly resulting in aggression as their instinctive response to the slightest setback. Students do not have appropriate role models to support them. The disintegration of nuclear and extended families had led to formally effective support mechanism disappearing (Dave, 2009). Moreover attitude of parents and priority they give to other things such as TV, radio and other entertainments also adds to the home environment which induce stress in children.

**Lack of parental involvement in studies.**

Parental involvement takes many forms including good parenting at home, including the provision of a secure and stable environment, intellectual stimulation, parent child discussion, good models of constructive social and educational values and high aspiration relating to personal fulfillment and good citizenship; contact with schools to share information; participation in
school events; participation in the work of the school and participation in school governance. “The most important finding is that parental involvement in the form of ‘at-home good parenting’ has a significant positive effect on children’s achievement and adjustment even after all other factors shaping attainment have been taken out of the equation” (Desforger & Abouchaar, 2003). The importance of parental involvement is reinforced by the considerable amount of research evidence which is now available to support the contention that improving parental involvement increases the effectiveness of education that children receive and facilitates children’s development (Horney, 2000). When socio-economic status is controlled for, parental involvement is the only variable with an appreciable positive impact on high school student’s educational attainment (Wade, 2004)

**Stress creating factors at school.**

Human relationships are the heart of schooling. The interactions that take place between students and teachers and among students are more central to student success than any method of teaching literacy or science, or mathematics. Powerful and intimate relationship between teacher and student can keep away almost all the factors that affect the students to some extent. Resilient children usually have four attributes in common, social competence, problem solving skills, autonomy and a sense of purpose and future. A school that strives to be a resilient learning community, builds its culture, designs curriculum, instruction and assessment and designs roles and responsibilities that foster these four attributes (Krovetz, 2008). Major school factors considered for the present study are lack of good teacher behavior, lack of
student friendly teaching learning process, lack of proper physical environment of school and undesirable school policies.

**Lack of good teacher behaviour.**

Teacher’s Verbal Behaviour in the classroom determine socio-emotional climate or general tone of the classroom. This climate has direct effects on the attitudes, belief system, perception and classroom behaviour of the pupils. Teachers whose behaviour are liked by the pupil are considered to be more effective, as such teachers prove to be more successful in bringing about more desirable change and modification and improvement in pupil behaviour and academic achievement (Malik, 1991). Personality, character, attitudes and observable actions are all factors that determine the effectiveness of teacher-student relationships. Students usually try to live up with teacher’s expectations. If a teacher expects the worst of his students, they seldom disappoint him. On the other hand if he believes in them and show confidence in their ability to become good citizens students usually justify that faith (Alcorn, Kinder & Schunert, 1970). In Sharma (1997) it is said that teachers are urged to run structured, orderly, teacher-directed classrooms, with clear academic focus, frequent monitoring, and supervision while maintaining a warm encouraging climate.

**Lack of student friendly teaching learning process.**

Teaching leads to a variety of learning related reactions on the part of the student and what the student does is actually more important in determining what is learned than what the teacher does (Sharma, 1997). Another important
outcome is whether the student feels that the learning experience was positive and fulfilling or not. Formal teaching learning program sometimes fails to meet the needs of many students who represent such diversity in interest, abilities and backgrounds. Where there is no immediate relief from the dissatisfaction of students with the curriculum, the teacher will need to exercise the utmost imagination and ingenuity to interest student in the work to be done. Not only curriculum but the methods used by the teachers are also important. Monotonous routines and inappropriate instructional procedures lead to behaviour problems (Alcorn, Kinder & Schunert, 1970). Effective teachers bring about intended learning outcomes. They manage students behaviour in the classroom, organize instructions, assess students learning and adjust learning activities in response to students needs and abilities (Ryan, Cooper & Tauer, 2008).

**Lack of proper physical environment of school.**

‘When we examine the furniture, colour, lighting density, temperature and attractiveness and consider how these aspects of the physical environment affect, how we feel and subsequently how we act and interpret the actions of others’, Basset and Smythe (1979) opines that the use of coordinated colour selection in schools can have positive effects on students achievement and attitudes. Overcrowding for brief periods has negative effects on mood and satisfaction, excessive heat has negative effect on mood and on liking for the environment and tasks, unattractive surroundings have negative effects on mood as well as on learning. The environment can have a significant influence on learning, moods and interpersonal communication. The ultimate effect of
the environment depends on how people adapt to it. It is important that a healthy beautiful and refreshing environment which soothe the eyes and refresh the soul and where the intellectual forces of teachers and pupils functions at their best is required. So we should realize that the students spend a good deal of their time in school premises. Dingy, crowded and unattractive maintenance create confusion and disorder (Aggarwal, 1972). Maintenance of proper temperature, ventilation and lighting in the classroom is important for good physical and mental health of students.

Undesirable school policies.

For any individual child the curriculum of a school actually includes every experience, which he has in the classroom, in the corridors and special room, and on play ground. Person to person relationship maintained between teachers and pupils in democratically administered schools are more wholesome, more sympathetic and based on more often on insights into children’s needs (Shukla, 2003). Power discrepancies between teachers and students is identified as a potential source of conflict. Classroom rules should be precise and consistent. It is probably best not to have unnecessary rules. The fewer there are the more likely they are to be observed. What rules there are need to be understood by pupils and if possible, endorsed by them too (Sharma, 1997). Over disciplinary actions contribute to truancy, defiance and tense classroom atmosphere. At the same time, well behaved children and adolescents who are given leeway in making their own decision at school experience strong efficacy and this supports academic success (Deci & Ryan, 2000). Rules and policies are explicit statements to students about what
behaviour is acceptable and desirable. Effective rules are essential to maintain a safe orderly and fair environment, such an environment can only promote good mental functioning for students without any stress while it will also lead to academic achievement (Ryan, Cooper & Tauer, 2008).

**Peer relations as stressors.**

Relationships are of vital importance to teenagers life. The esteem of friends and support gained from a stable friendship group is central to most young peoples feelings of happiness and well being at a time when they are acutely aware of changing body image and establishing their identity in terms of personal opinions and beliefs. In their desire to be accepted as a part of an ‘in’ group, young people can be vulnerable to peer stress (Harries, 2006).

The global spread of adolescent culture could have resulted in a globalization of perceived stress in close relationship with parents and peer (Schiegel, 2001). The function and significance of relationships with friends also change and peer groups assumes an important role in the lives of adolescents (Rubin, Bukowski, & Parker, 1998).

Functions, relationships with peers and friends also create a potential source of stress. One major concern of adolescents is being rejected by their peers, which is reported to be half the source of major stress related to peers (Bowker, Kulcowski, Hymel & Sippola, 2000). Within the peer group the child has an equal chance of communication because the group has no basis for existence except sociability. In terms of influence it is within this group that the child often find person he can imitate and identify with; they do much
to shape his personality development. Success, failure or simply relationships found in the school setting all have an impact on personality formation (Glimer, 1973). The impact of peer group is significant in determining adolescent stress. Early adolescence is said to be vulnerable to exclusion and based on cliquishness and social prejudice. There is disillusionment when teenagers discover that new fixed objectives of their affects turn out to be less perfect than imagined. Connell and Wellborn (1991) posited that ‘humans have fundamental needs for structure, autonomy and relatedness, and that the extent to which they can fulfill these needs within a certain context will produce their engagement in that context, and ultimately, their performance’. Applied to educational contexts, the model status that interpersonal relations within school context provide students to a varying degree with structure, autonomy support and relatedness. These self system processes are then hypothesized to catalyze engagement versus disaffection towards school activities, which are considered a primary motivational influence on student’s academic performance. According to Connell (1990) “need for relatedness is the need to feel securely connected to the social surround and ready to experience oneself as worthy and capable of love and respect”. There are several peer experiences or circumstances in the peer context that can be considered to threaten affiliation or status related goals, such as peer rejection, lack of support and lack of friends. Another chronic situations is “victimization that is, being repeatedly exposed to harassment and humiliation by peers” (Salmivalli & Isaacs, 2005). “Experience of victimization have not only been considered as correlates of peer stress but as an indicator of stress in peer context” (Rose & Rudolph, 2006).
According to Parker, Rubin, Price and DeRosier, (1995) the quality of relationships between any two people in any culture determines and is determined by emotional factors. Attraction, rejection, attachment, conflicts, trust, jealousy and intimacy all reflect emotional dimensions of relationships. Friendships and peer interactions require emotional skills and also contribute to children’s general social and emotional adjustment. One of the prominent attribute of adolescence is peer pressure which is the “pressure to think or behave along certain peer- prescribed guidelines. Peer group relations form an integral component of adolescent socialization and facilitate individual development of a sense of identity” (Erickson, 1968). The central feature of most notions of peer pressure is that individuals are motivated to act and think in certain ways because they have been waged, encouraged or pressured by a peer to do so (Santor, Messervey, & Kusumakar, 2000). “Increased risk for interpersonal difficulties, peer victimization and stressful events involving close friendships and romantic relationships have been found to be major forms of peer stress” (Rose & Rudolph, 2006).

Peer groups, though commonly referred to as a negative influence in adolescence, are actually an essential proving ground for adolescent relationships and behaviour which leads to lack of problem behaviour (Padilla-Walker & Bean, 2009). The need to be liked, to be accepted, and to belong are universal feelings but perhaps at no time more emphatically felt than at adolescence. This is true because during this period the adolescent is undergoing many new and varied experiences evolving the self accept, physiological and physical changes, attempts to resolve the revived Oedipal conflict, making a heterosexual adjustment and choosing a career. With such
burdens, it is small wonder that the adolescent seeks his fellows out with such intensity of feeling. The need to succeed in these developmental tasks is primary and since, generally, he cannot relate to or communicate with his parents he finds refuge with his own age. The alienation from parental control generally compels the adolescent to externalize his conflicts and to control his behaviour along standards determined by his group. Thus, for a time, the group criteria may dominate the adolescent’s attitude (Keill, 1964). Social relationships at school are sources of stress for many students. Stress can come from competition among students, concerns about not having enough friends, or not being in the same class as friends (Peece, 2008; Scott, 2008; Sedere, 2010). Some students experience the stress of victimization at school when they are teased intimidated, or bullied by other students (Killby, 2009, Scott, 2008).

**Symptoms of stress.**

Stress usually manifest cognitive, behavioural and physical symptoms.

**Cognitive distress symptoms.**

Stressful situation sometimes produce

- Lack of concentration
- Poor memory
- Fuzzy or illogical thinking
- Mental block
- Difficulty in organizing thoughts
- Inward preoccupation
Bizarre disjointed thoughts
Interfering with listening
Nightmares

**Behavioural distress symptoms.**

This can be classified into direct and indirect symptoms.

**Direct symptoms.**

- Compulsive spur of the moment action
- Stuttering or stumbling in speech
- Talking faster than usual
- Grinding teeth
- Easily startled
- Difficulty sitting still
- Significant interpersonal conflict
- Withdrawal
- Lashing out at someone or something
- Crying spells

**Indirect symptoms.**

- Increased smoking
- Use of television as an escape
- Increased alcohol consumption
- Increased use of the counter aids for sleeping or relaxation
- Use of sleep as an escape
• Use of illegal drugs
• Increased consumption of coffee, tea, colas or chocolate
• Irrational spending
• Seeing medical doctor for tension related health problems.

**Physical distress symptoms.**

• Toe jiggling and foot tapping often reflect impatience and irritability.
• Tight, hunched shoulders, which can become chronically sore, can signal anxiety, fear or embarrassment.
• Tightly folded arms may signal disapproval, anger apprehension, or desire to be left alone.
• Tightly crossed or coiled legs can convey several messages wanting to be left alone, anxiety, fearful anticipation.
• Sagging, sloping shoulders and back can reflect fatigue temporary or cumulative or feeling burdened.
• Nail biting often conveys worry, tension, anxiety and low self esteem.
• A jutting jaw often shows apprehension and tension.
• Clenched hands or tight fingers reflect anxiety, usually of a current or anticipatory kind.
• Furrows and frowns in the forehead are another sign of worry, fatigue or depression.

Other manifestation of physical distress are

• Trembling or nervous twitch
• Dryness of mouth or throat
- General fatigue or heaviness
- Pounding of heart
- Diarrhea
- Constipation
- Frequent need to urinate
- Upset stomach
- Neck pain
- Back pain
- Dizzy spells
- Loss of appetite
- Increase of appetite
- Chest pain
- Heart palpating
- Tension throughout the body

Although it is difficult to attribute the cause of illness to any particular stress, the literature relating to skin disorders, respiratory disorders and digestive disorders are manifestations of stress in school, personal and interpersonal arenas, giving strong support for the part that stress plays in illness. Similarly, behavioural problems are often associated with the stresses experienced by the individual. Some of the manifestation of stress that have been observed by school psychologist are given as presented in Frydenberg (1997) was given in table 2.
Table 2

*Indicators of Stress in Adolescence*

<table>
<thead>
<tr>
<th>Home</th>
<th>School</th>
<th>Community</th>
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<tbody>
<tr>
<td>Aggression</td>
<td>Anger</td>
<td>Alcohol addiction</td>
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<tr>
<td>Arguing</td>
<td>Antisocial behaviour</td>
<td>Apathy</td>
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<tr>
<td>Boredom</td>
<td>Arguing</td>
<td>Burglary</td>
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<tr>
<td>Chronic fatigue</td>
<td>Attention seeking behaviour</td>
<td>Cruelty</td>
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<tr>
<td>Conflict with siblings</td>
<td>Bragging</td>
<td>Drug addiction</td>
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<tr>
<td>Cries easily</td>
<td>Bullying</td>
<td>Excessive fooling around</td>
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<td>Excessive TV viewing</td>
<td>Confusion in problem solving</td>
<td>Gang behaviour</td>
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<tr>
<td>Excessive weight gain or loss</td>
<td>Difficulty in completing work requirements</td>
<td>Homelessness</td>
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<tr>
<td>Inability to manage daily routine</td>
<td>Exhaustion</td>
<td>Indifference</td>
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<tr>
<td>Lack of interest</td>
<td>Fighting</td>
<td>Non participation</td>
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<tr>
<td>Over-eagerness to please</td>
<td>Fooling around</td>
<td>Promiscuity</td>
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<tr>
<td>Physically abusive</td>
<td>Illness such as glandular fever</td>
<td>Tobacco addiction</td>
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<tr>
<td>Procrastination</td>
<td>Inability to commence new task</td>
<td>Vandalism</td>
</tr>
<tr>
<td>Rebellion</td>
<td>Isolation/being withdrawn</td>
<td>Violence</td>
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<tr>
<td>Sadness</td>
<td>Non-participation</td>
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<tr>
<td>Short temper</td>
<td>Poor concentration</td>
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<tr>
<td>Shouting</td>
<td>Showing off</td>
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<tr>
<td>Skin disorders</td>
<td>Teasing/taunting</td>
<td></td>
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<tr>
<td>Sleeping disorders</td>
<td>Truanting</td>
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<tr>
<td>Sulking</td>
<td>Violence in the school yard</td>
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<tr>
<td>Ulcers</td>
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<td>Uptightness</td>
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Potential effect of stress.

Major effects of stress results in impaired task performance, disruption of cognitive functioning, burnout and post traumatic stress characters.

Stress effects one’s ability to perform effectively, pressure to perform often makes people self-conscious and that this elevated self consciousness disrupts their attention (Baumester, 1984). Keinan (1987) opined that stress increases subject’s tendency to jump to a conclusion too quickly without considering all their options and to do an unsystematic, poorly organized review of their available options. Studies also suggested detrimental effects of stress on certain aspects of memory functioning.

Burnout is explained as the physical and emotional exhaustion, cynicism and a lowered form of self efficacy that is attributed to work related stress. Exhaustion includes chronic fatigue, weakness and low energy. Cynicism is manifested in highly negative attitudes to oneself, one’s work and life. In general, reduced self efficacy involves declining feelings of competence, which gives way to feelings of hopelessness and helplessness. Work stress is not the only cause for burn out. It is possible that chronic stress from other roles, such as parenting or being a student may lead to burnout (Weiten & Lloyd, 2003).

According to Pestonjee (1999), every era in history has been characterized by some debilitating disease. Stress is unique in the category of disease. It has no biological carrier such as a germ or virus. It is the result of how our mind and body function and interact. It is psychosomatic in the true
sense of the word- psyche meaning ‘mind’ and ‘soma’ meaning ‘body’. It is the consequence of how we do not regulate the mental and physical functioning of our being. It is the disease created by the abuse of our minds and bodies and can lead to totally different symptoms in different people. Though its symptoms are many, it comes and often goes unrecognized and untreated.

Girdano, Everly and Dusek (1993) states that, “stress is the body reading. It is physiological (mind-body) arousal that can fatigue body systems to the point of malfunction and disease”. According to Sarafino (2002) physically or psychologically challenging events or circumstances are called stressors and the person’s psychological or physiological response to a stressor is called strain and stress as a condition in which person-environment transaction lead to a perceived discrepancy between the physical or psychological demands of a situation and the resources of the individual’s biological, psychological or social systems. Stressors can produce strain in the person’s biological, psychological and social systems. Selye (1956) called the series of physiological reactions the general adaptation syndrome (GAS) which consisted of three stages. Stage 1 Alarm reaction which mobilize the body’s resources. At first the blood pressure drops below normal and then rises immediately which is the result of activation of the hypothalamus-pituitary-adrenal axis: the hypothalamus triggers the pituitary glands, to release epinephrine, nor epinephrine and cortisol into the blood stream. By the end of this stage in the GAS the body is fully mobilized to resist the stressor strongly. In the second stage of GAS, stage of resistance the body tries to
adapt the stressor. Physiological arousal declines somewhat but remains higher than normal and the body replenishes the hormones released by the adrenal glands. Despite this continuous physiological arousal, the organism may show few outward signs of stress. But ability to react new stressors may be impaired for long period of time. As a result organism become increasingly vulnerable to health problems including ulcers, high blood pressure, asthma and illness that result from impaired immune system. In the third stage of GAS that is, stage of exhaustion, prolonged physiological arousal produced weakens the immune system and depletes the body’s energy reserves until resistance is very limited. If stress continues disease and damage to internal organs are likely and death may occur.

According to Pelletier 1994, “Psychoneuroimmunology research opens a window on to the complex psychological and behavioural factors that influence the onset and course of stress and immune-related diseases. Correlation between high levels of stress and myriad health problems have been found, including cardiovascular disease, high blood pressure, headaches, back pain, ulcers, anxiety, insomnmania, depression, increased accident rates, alcohol and drug abuse, suicide, increased susceptibility to infection diseases, autoimmune disorders (such as lupus) and even the common cold”.

Psychosomatic illness properly refers to sickness in which the mind plays a causative part. Illness usually do not have one single origin, but rather, result from the convergence of a number of factors deficient nutrition, fatigue, exposure to germs, weakened immunity and more. Through emotional and cognitive distress, the mind sometimes contributes to illness in four ways:
1. Long-term wear and tear from excessive stress makes the body more susceptible to breakdown, such as peptic ulcers, cancer, migraines or high BP.

2. An acute episode of intense emotional stress can directly precipitate physical ailments such as heart attacks, tensions, headaches or muscle spasms in the back.

3. High stress chronic or acute can aggravate an existing illness, such as angina, diabetes, arthritis or hypertension.

4. Stress can alter health habits, such as alcohol consumption, exercise, sleep or adherence to prescribed medications thereby raising chances of illness.

**Coping with stress.**

In order to avoid the after effects of stress one has to cope effectively with stress. As Frydenberg (1997) says “coping is made up of the responses (thoughts, feeling and action) that an individual uses to deal with problematic situations that are encountered in everyday life and in particular circumstance. Sometimes problems are solved and sometimes they are ignored in an individuals attempt to deal with the environment”. According to Lazarus (1991), “coping is the cognitive and behavioral efforts to manage specific external or internal demands (and conflicts between them) that are appraised as taxing or exceeding the resources of a person”. There are three key aspects of Lazarus’ definition of coping:

1. Coping is context bound rather than primarily driven by stable personality characteristics.
2. Coping strategies are defined by effort, which accounts for just about anything an individual does in their transaction with the environment that is purposeful. Therefore coping need not be a successfully complete act but an attempt to deal with the problem. The concern is with the attempt rather than the effectiveness of the outcome. The attempt may consist of behavioural acts or cognitive.

3. Coping is seen as a process that changes over time during a particular encounter. There is an appraisal of the situations prior to initiating a coping action and the consequences of coping efforts set the stage for reappraisal of the situation and determine the call on coping resources (Lazarus, 1991). Research in the area of adolescent coping generally focus on situational determinants, individual characteristics and coping action (Frydenberg, 1997). As said in Frydenberg (1997) coping is

\[ C = f (P - S + PS) \]

- \( C \) – Coping
- \( P \) – Personal characteristics
- \( S \) – Situational
- \( PS \) – Perception of situation

We need to be looking for factors and processes that may distinguish effective coping across a wide variety of stressful experiences. The coping strategy required in a situation of exam failure is very different from what may be regarded as an effective way of dealing with a quarrel with one’s parents.
This overview makes a convincing care that stress reduction (however brought about) has far reaching beneficial consequences for physiological adaptation and health maintenance, and prevention of exhaustion. The analysis and reflection about the nature of stress provides clues about the stimulus controllability and most promising first intervention. This does not demand help from professionals but mere commonsense and life experience will do a lot. First step in managing stress is clear understanding of stressors’ properties. Stress management develops an ability to cope in a competent manner with stressors and increases one’s understanding about one’s stress and help to exercise a control over the stress.

**Bibliotherapy**

Bibliotherapy is a program of activity based on the interactive process of the use of print and non print materials whether imaginative or informational, facilitated by a librarian or other professional, to achieve insight into normal development or to effect changes in emotionally disturbed behaviour (Rubin, 1978). The “idea that the arts can benefit the emotional well-being of the observer, creator or reader has been around atleast since Aristotle proposed the notion of emotional Catharsis” (Pehrsson & McMillen, 2005). According to Caroline Shrodes human response to literature is

A portrayal of a personal relationship, a conversation, a reflection of mood, a traumatic experience, an act of aggression, presented in literature may become a symbolic equivalent of a personal relationship, a conversation, a mood, a traumatic experience… As such it must
evolve, at least in part, the same effective responses as did the original experience (Shrodes 1950).

Bibliotherapy derived from the two words biblion (means books) and therapia (means healing) was first coined by Samuel McChord Crothers a Unitarian Minister and essayist in 1916, (Crothers, 1916). In 1961, American Library Association (ALA) accepted Webster’s Third New International Dictionary’s definition of bibliotherapy, which define it as “the use of selected reading materials as therapeutic adjuncts in medicine and psychiatry; also guidance in the solution of personal problems through directed reading” (Webster, 1961). According to Shrodes (1950), Bibliotherapy is “the process of dynamic interaction between personality of the reader and literature under the guidance of trained helper”. Major synonyms of Bibliotherapy are bibliocounseling, bibliopsychology, book matching, literatherapy, library therapeutics, guided reading and biblio guidance (Pehrsson & McMillan, 2005).

However, bibliotherapy is not restricted to the medical or physical context. More importantly, bibliotherapy does not claim to cure, but to ‘enlighten’ in the truest sense of the word. Webster’s defines ‘enlighten’ as ‘to give the light of fact and knowledge to; reveal truths to; free from ignorance, prejudice, or superstition; to give clarification to a person as to meanings, intentions and more’ (Rubin, 1978).

The goal of bibliotherapy should be insight and understanding. To understand is to stand under, to stand away, to stand apart, in order to see something from different perspective; to learn; to know, and then to integrate that knowledge into the self. Insight is the power of thinking, feeling person
to look within and beneath the surface of things; it is an ability that can be strengthened through bibliotherapy. It is especially important that bibliotherapists be aware of the power they can engender in the client, as opposed to the power that is removed. The only demonstration of power for a helpless person is through a nervous breakdown or through commission of a crime. By “acting out”, he or she can command attention and sympathy—this is power over others. When a person in therapy learns about the motives for his or her behavior, that power is often removed. Any effective therapy must replace the destructive power with a new, constructive one—that of insight and understanding. Bibliotherapy and other activity therapies help clients gain an appreciation of their abilities in dance, art, or understanding. These therapies also offer opportunities to try out new behaviors.

Ancient Greeks wrote on the entrance of their libraries as “Medicine for the Soul”. Books were prescribed for physical and moral purposes in the 18th century Europe when libraries were founded in psychiatry hospitals. However Bibliotherapy turned out to be a popular topic in the second part of the 20th century for counselors, social workers, psychologist and educators (Tanrikulu, 2011).

Mainly there are three types of Bibliotherapy. Details of which are presented below:
### Table 3

**Types of Bibliotherapy**

<table>
<thead>
<tr>
<th></th>
<th>Institutional</th>
<th>Clinical</th>
<th>Developmental</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Format</strong></td>
<td>Individual or group; usually passive</td>
<td>Group-active; voluntary or involuntary</td>
<td>Group-active; voluntary</td>
</tr>
<tr>
<td><strong>Client</strong></td>
<td>Medical or psychiatric patient, prisoner, or client in private practice</td>
<td>Person with an emotional or behavioural problem</td>
<td>‘normal’ person, often in a crisis situation</td>
</tr>
<tr>
<td><strong>Contractor</strong></td>
<td>Society</td>
<td>Society or the individual</td>
<td>Individual</td>
</tr>
<tr>
<td><strong>Therapist</strong></td>
<td>Physician and librarian team</td>
<td>Physician, mental health worker, or librarian, often in consultation</td>
<td>Librarian, teacher, or other</td>
</tr>
<tr>
<td><strong>Material used</strong></td>
<td>Traditionally didactic</td>
<td>Imaginative literature</td>
<td>Imaginative literature and/or didactic</td>
</tr>
<tr>
<td><strong>Setting</strong></td>
<td>Institution or private practice</td>
<td>Institution, private practice or community</td>
<td>Community</td>
</tr>
<tr>
<td><strong>Goal</strong></td>
<td>Usually informational, with some insight</td>
<td>Insight and/or behavior change</td>
<td>Normal development and self actualization</td>
</tr>
</tbody>
</table>

The focus of Bibliotherapy can be remedial (clinical) or developmental. Remedial or clinical bibliotherapy involves the clinical use of guided reading with individual experiencing serious emotional behavioural...
problems. Developmental Bibliotherapy refers to the use of guided reading with regular readers as a dynamic interaction between a reader's personality and literature. Developmental Bibliotherapy may be used by teachers and other lay helpers to facilitate normal development and self actualization with an essentially healthy population. It is the developmental nature of bibliotherapy which is most applicable to elementary classroom (Rubin, 1978).

Among various stress reduction programmes “Bibliotherapy is currently being used to help children who are experiencing a variety of emotional and developmental difficulties. These difficulties include controlling aggression, managing stress and initiating and maintaining social relationships. In addition all children can benefit from being taught a literature bibliotherapy lesson because students are likely to encounter similar issues during their school years” (Jackson, 2006).

Teachers can use childrens’ literature to help their students solve problem and generate alternative response to their issues. Bibliotherapy can be used with a single child, with a small group of children or with an entire class with minor variations in procedure. Considering bibliotherapy in schools it is easy for teachers to identify the problems of students and select appropriate literary material for bibliotherapy. Considering the students, while going through a literature, “identification of character may go beyond personal character to include others in the story and child’s own life. Second a child who identify with fictional character may imitate that character. When real person in child’s life do not provide appropriate model, fictional characters
may. The third important advantage of reading as a form of intervention is that the child is in control. He can choose not to continue or to continue at a pace appropriate to his feelings” (Jackson, 2006).

According to Pardek (1986), nowadays “bibliotherapy is viewed as an emerging strategy that can be used not only for clinical problems but also a technique helping children handle developmental needs. The National standard for school counseling program published by American School Counseling Association states that “the school counseling program has characteristics similar to other educational program including a slope and sequence; student outcomes or competencies; activities and process to assist students in achieving the outcomes”.

As explained by Jackson (2006) Bibliotherapy has 3 processes. Key elements in the process of Bibliotherapy are,

- **Identification** - Children come to realize that they are not the only person with particular stressful living condition. By recognizing similarities between themselves and with the characters they work out their problems vicariously. Identification is not limited to a reader’s identification of self with a story character, but the child may develop a better understanding and appreciation of the real person. Identification helps in recognizing the thoughts and behaviour of others.

- **Catharsis** - Catharsis builds upon identification. When a child who identifies with a fictional character lives through situation and shares feelings with that character the child experience Catharsis. This vicarious experience may produce a relax of tension or an imitation of
character’s behaviour. When this happens it is important that child should have someone to share this, on a one to one basis or in a group. After releasing emotional tension individuals become better able to apply what they have learned to their own similar situation resulting in insight. An advantage of reading a therapeutic experience is that reader can back off, it will not force the child to participate.

- **Insight**: Through reading children may become more aware of human motivations and of rationalization for their own behaviours. They may develop a more realistic view of their abilities and self-work because the written words tends to carry authority. Insights targets an individual’s specific problem and brings issues to the surface. So they can be addressed. Children who feel doubt and suspicious towards adults and peers tend to be sure of books. Authors of fiction generally become trusted because they rarely impose judgement explicitly.

  Gregory & Versey (2004) discussed that insight happens when a child realizes he or she has a problem similar to one of the story characters. Thus after an awareness of the problem, child may begin the process of problem solving.

  Reading can serve multiple psychological purposes, which includes fantasy expression and gratification, channeling impulsive expression, providing information that aids testing, offering ideas and values that can guide behaviour dealing with universal conflicts and feelings and nurturing cognitive development and functioning. Reading can also serve to liberate oneself from one’s own environment, offer comic relief, find pleasure in words and ideas and prepare for any integration of life experiences.
The teacher, who wants to use books to help children understand the challenges, stressful events and situations, childhood traumas and problems of growing up, need not be a clinical psychologist. The main qualifications are an interest in and concern for children and a willingness to become familiar with children’s literature. Children’s literature provide special medium or teaching technique, many teachers feel comfortable using in classroom since it involves reading, listening to and analysing a story. When used in a stress intervention, the story selected has as its theme a particular stressor, and the procedure consists of encouraging children to react through discussion to the story elements and the character’s behavioural reactions. The cognitive and language skills of reading, listening, speaking and analysis are employed, just as in other familiar language activities. The use of children’s book as a reactive intervention can be used with a single child, with a small group of children or with an entire class.

Objectives of bibliotherapy includes,

- Help the students to identify the stresses felt by them.
- Equip the children to cope with stressors.
- Equip the children to cope with stressors in identical situation in their life as told in the story.
- Involve children in the story telling process.
- Actively engage the child in therapeutic process and help in search for the means to reach desired outcome.
Bibliotherapy among children.

Various studies conducted proved the effectiveness and importance of Bibliotherapy as an intervention for controlling and reducing the problems faced by children and adults. Muto, Hayed and Jeffcoat (2011) through their study established that moderately depressed or stressed and severely, anxious students showed improvement compared to those not receiving books. A study conducted by Pam (2010) investigated bibliotherapy use in a regional Australian City with adolescents who have chronic illness. It explored the responses of members of welfare teams (welfare co-ordinators, school nurses and teacher librarians) within secondary schools to question on how books are used with students experiencing such issues. Findings indicated that although bibliotherapy practice is formal process within schools, its central phenomenon of a reader, forming a relationship with a book and then changing in some significant way as a result is a concept that most participants understood and attempted to utilize with the students in their care. Brigg & Pehrsson (2008) provided an overview of historical and contemporary constructs of grief counselling and presented Bibliotherapy, a creative counselling tool as an appropriate intervention when counselling grieving clients. Study conducted by Okwilagwe & Mubonyin (2011) investigated the role of bibliotherapy in value system formation by undergraduates in seven faculties of the university of Ibadan Nigeria. Findings indicate that “bibliotherapy exerts determining influence on value system formation by under graduation with respect to group, -self-society-environment and nation-oriented values”. These findings corroborated previous studies by educators, librarians, physicians, nurses, psychologists
and occupational therapists or bibliotherapists who are of the consensus that the book exerts influence on the human spirit and impacts heavily on human behaviour and formation of value system. Many elementary school children may cope with difficult life struggles such as disabilities, abuse, loss, and identity issues. This article details original, student generated, bibliotherapeutic book creations and how this genre teaches positive ways for children at-risk to copy with tough life circumstances. Pre-service, elementary college graduate students created their own biblio-therapeutic books in this author’s literacy course in order to demonstrate the home to school connection by heightening empathy skills. This author and professor had students create coping themes they felt most compelled them in their own childhoods and/or were issues they felt needed to be explored in children’s literature. Four, bibliotherapy, coping themes are discussed as well as students’ originally created, corresponding lesson activities. Students reflections on this emotionally charged project, report highly favourable results.

“Reading guidance or bibliotherapy can be a simple procedure. However professional therapeutic skills are necessary if the child’s problem is severe” (Jackson, 2006). Teachers are persons who are always in contact with children, so they are able to understand and identify the problems faced by children. As story telling had been used for moralising, healing and passing information from the very day of human communication it can also be used by teachers effectively in their classrooms. First of all teachers have to identify the problems of children then select suitable stories which can provide necessary help regarding the problem of the child. Bibliotherapy lesson plans are available which can be made use for preparing and planning
the selected stories for the purpose. By giving bibliotherapy to the whole class severity, most of the similar problem felt by students can be reduced, when the teacher feels that special therapy was needed for a particular child, teachers can make necessary requirements for the further therapy of the student. As language teachers are always in contact with different types of literature it will be very easy for them to select the suitable stories according to the requirement of the children.

Prater, Johnstun, Dyches & Johnstun (2006) opine that “teacher can use literature as bibliotherapy for both children and adolescents to create a safe distance allowing them to deal with sensitive issues related to these problems, as well as to teach social skills that can help prevent school failures as a result of social, economic and family stress factors”.

Relaxation

We have already discussed that children are often confronted by different problems which are not fully controllable by them. Adults control most of the situations in schools and home and so children have to cope with such situations. All these situations arouse discomfort for children which may manifest in different forms affecting the psychological and physical aspects of the children. Nowadays in schools various programmes are introduced to reduce such problematic situations which induce various stress among students. Techniques like Yoga, Meditation, dance and music are practiced in schools to reduce student’s stress. “Relaxation Training is probably the most used pharmacological, both stand-alone and psychotherapy combined approach for the treatment of many medical and psychological diseases.
Among the wide range of many non-conventional and sometimes doubtful treatments, relaxation based methods such as meditation, progressive muscle relaxation, applied relaxation, mindfulness and autogenic training have received the great scientific attention and validation” (Francesco, Mauro, Gianluca & Enrico, 2009). Relaxation as proved to be a successful and well established method for reducing stress and physical ailments can be introduced in schools for the well being of children. Not being a complicated process requiring sophisticated apparatus, relaxation can be easily made use of in schools. Relaxation training can be easily given to teachers so that they can help students practice relaxation to get a grip over their tensions and stress. This will help them to acquire a relaxed state which will promote their mental and physical well being which inturn improves their overall performances including academics.

“Relaxation techniques belong to the main coping strategies that are supplied to children to improve stress management” (Lohaus and Klein-heBling 2000). Lazarus and Folkman (1984) differentiated coping strategies into two general types: Problem focused and emotion focused coping strategies. Problem focused strategies are oriented to specific changes of external environment or to changes of personal characteristics. The target of emotion focused strategies is the regulation of somatic or emotional reactions resulting from stress experience. Spirito, Stark, Grace and Stamoules (1991) showed through their study that children aged 6-9 mainly use problem solving strategies while emotion regulating strategies are seldom used in this group. As the age increases the significance of emotion regulating strategies increases. It was also found that problem solving strategies are used in all age
group and do not show comparable developmental trends. So they concluded that using relaxation techniques may be of importance in increasing the use of emotion regulating strategies especially in younger age group.

According to Jacobson (1976) relaxation in any muscle means complete absence of all contractions. During complete relaxation no messages are carried by the nerves to and from these muscles and so nerves are completely inactive. When an individual take rest by lying for a long time actually that individual remain sleepless and nervously restless. Signs of mental activity, organic excitement, anxiety and other emotional disturbances are showed. So a complete rest is not attained and so relaxation is not perfect. This is a state of residual tension and this can be explained as a state that appears to be a fine continued contraction of muscle along with slight movements of reflexes. According to Jacobson this residual tension can be done away with Relaxation Training. When the individual relaxes beyond the state of residual tension slight breathing irregularities are lost, pulse rate decline to normal, blood pressure and pulse rate falls, knee jerks diminishes and almost all parts of the body feel relaxed and mental and emotional activity disappears for brief periods. In such a condition the individual lies quietly with flaccid limbs and no traces of stiffness. Eye lids become motionless, previously present tremor get diminished and even a slight shift of trunk, or limb or a finger will not take place. This is most restful and natural form of sleep. When such a relaxation is limited to a particular part of the body and when it includes entire body it is called general relaxation.

Jacobson (1934) developed a physiological method of combating tension and anxiety. Earlier investigation by Jacobson concluded that
shortening of muscle fibers arose tension which is reported as anxiety and such anxiety can be removed by removing the tension. Jacobson discovered that systematic tensing and releasing dozens of muscle groups, learning to attend and discriminate between resulting sensation of tension and relaxation can help a person to completely eliminate muscle contractions and experience a feeling of deep relaxation. For convenience in clinical situation Wolpe (1958) shortened the standard Jacobsonian Progressive Relaxation Training (PRT) programme making it possible to complete in six 20-minute sessions, supplemented by twice daily at home practice sessions of 15 minutes each. Wolpe’s procedures were similar to Jacobson’s in terms of tensing and releasing muscle groups, but in Wolpes’ version the therapist have to play a more active role, which included running instructions to guide clients in the tension-release cycles and providing them with suggestions to facilitate awareness of the bodily sensations accompanying those cycles. Wolpe’s work in relation with PRT allowed the therapist to focus not only on relaxation training but to help client’s relaxation to inhibit anxiety responses to specific environmental situations. According to Jacobson (1976) relaxation is called progressive in three aspects. (1) “The subject relaxes a group, for example the muscle that bend the right arm, further and further each minute. (2) He learns one after the other to relax the principal muscle groups of his body. With each new group he simultaneously relaxes such parts as have received practice previously. (3) As he practices from day to day, he progress towards a habit of response tends towards a state in which quiet is automatically maintained”.
Procedure of progressive muscle relaxation.

According to Jacobson (1976) to learn to pass from the state of tension that usually characterizes modern living into one of marked relaxation within a few minute or less; to repeat this again and again until relaxation becomes habitual is the aim of tension control. For relaxing the first and foremost a quiet environment devoid of all interruptions is inevitable. All types of interruptions including sound and light should be averted. Though a complete darkroom is preferred it is not practicable for the trainer to watch the subject. Sometimes a darkroom may influence negatively. Then as a next step a comfortable couch or bed should be selected which provides completely comfortable posture for the individual for practicing progressive muscle relaxation. Beside the environment subjects clothing and accessories also should be considered to provide maximum comfortable free movement. The most important requirement is the maximum physical and psychological comfort for the client.

As a second phase through proper explanation and justification of the procedure, the trainer should instill in the subject a feeling of confidence in the trainer and the technique and enthusiasm to carry out the ‘homework’ assignment. The trainer should first of all present a rationale of the progressive muscle relaxation training including what is PRT, how it is given, what are the results, why it is useful, how it help the subject and all. After the subject has understood and accepted the rationale underlying PRT, the trainer should satisfactorily answer the queries of the subject. Care should be taken that the training programme should follow the sequence outlined in the rationale.
In the PRT suggested by Jacobson the sixteen muscle groups involved are the following.

1. Dominant hand and forearm
2. Dominant biceps
3. Non dominant hand and forearm
4. Non dominant biceps
5. Forehead
6. Upper cheeks and nose
7. Lower cheeks and Jaws
8. Neck and throat
9. Chest, shoulders and upper back
10. Abdominal or stomach region
11. Dominant thigh
12. Dominant calf
13. Dominant foot
14. Non dominant thigh
15. Non dominant calf
16. Non dominant foot

In teaching relaxation, the following sequence of events must occur with respect to each muscle group:

1) The client’s attention should be focused on the muscle group.
2) At a predetermined signal from the therapist the client tenses the muscle group.
3) Tension is maintained for a period of 5-7 seconds (this duration is shorter in the case of the feet).
4) At a predetermined cue the client releases the muscle group.

5) The client focuses attention upon the muscle group as it relaxes.

In the procedure how the therapist speaks is as important as what is said. Subtle features of volume and inflections are of vital importance in the adequate presentation of PRT to the client. The therapist should begin the first relaxation session in a conversational tone and over the course of the first session the therapist voice should become progressively quieter, consistent with the client’s progressively increasing relaxation. In addition to speaking more softly the pace of speech should also become slow as the relaxation session is one half to two thirds completed.

After providing all informations regarding the PRT therapist can give a description of at-home practice procedure. Relaxation is a skill that should be practiced for a period of 15-20 minutes atleast twice daily.

The therapist uses standard set of instructions to direct the subject to the sequential procedure of PRT. For this instructions are first given to attain a suitable atmosphere by closing the eyes for three or four minutes. The subject should neither speak nor be spoken to. Step by step the instructor gives instructions to the subject to focus on the muscle or muscle groups to be tensed. First the instructor gives direction to produce tension in the desired muscle, then instructions are given to retain the tension for 5-7 seconds according to the muscle tensed. After that instructions are given to release tension from the muscles to feel the relaxation. In order to get exact time and exact length of tension and relaxing the therapist instructs the subject to give specific tension signals. Then therapist terminates the tension with standard
In the post relaxation session, therapist asks about the experience of subjects, the difficulties felt by them, and whether they are able to get complete relaxation on all muscles. After identifying the problems, corrective procedures can be given to make sure that no residual tension exists anywhere in the body, the session can be terminated.

Then the importance of home practice procedure is informed. The subject is encouraged to practice every day twice for a period of about 15-20 minutes each time with at least 3 hours separating the two daily practice sessions.

After the achievement of complete relaxation the therapist can terminate the session. For this therapist can count from 4 to 1 and give the instructions to move each part of body while counting 4, 3, 2 and 1. That is begin to move legs while counting 4, arms and hands on counting 3, head and neck on counting 2 and open eyes on counting 1. The therapist can instruct the subjects to slowly awake from a short nap because arousal from deep relaxation is similar to waking up.

**Progressive muscle relaxation among children.**

Progressive muscle relaxation training is clearly an effective technique for reducing tension, anxiety and physiological arousal. A large amount of empirical work also supports the technique as an effective stress management and anxiety reduction procedure for non clinical group (Bernstein, Borkovec, Bernstein, Borkovec,
Relaxation training is effective in reducing anxiety in any kind of participants, male or female, young or old, affected or not by physical or psychological disorder (Francesco, Mauro, Gianluca & Enrico, 2009).

Dave (2009) recommended for teaching students relaxation techniques to help them feel calm. More students bring a lot of emotional baggage with them to school because of the difficulties they face at home or in the community with the challenge of gangs or the difficulties they face with their learning and mixed messages they receive from the media. Courtney (2005) also suggested that children’s stress comes from a variety of situations such as bullying, divorce, high stakes testing and peer pressure. Because many children are not exposed to stress management techniques, stressful situations often result in unhealthy coping mechanisms. Such as over eating, acting out and substance abuse behaviours. Relaxation activities can be taught to provide students with method of coping with these situations in a healthy manner. These strategies can be used during school, outside of school and throughout life. Lohaus and Klein-heBling (2000) concluded in their study, that children who participated in relaxation activities during school experience reduced blood pressure and heart rate and their self report ensured improvement in feelings of calmness and physical well being.

Relaxation may be seen as a behavioural state usually defined by the specific operations that are used. Implications for children are far reaching and include possibilities of enhancing application with intellectual, social and emotional development. Improvement in learning, health and general quality of life have been among the benefits of relaxation programmes.
**Studies on Academic Stress**

Lin and Huang (2014) surveyed academic burnout and life stresses among college students and further assessed whether reports of life stresses can serve as a predictor of academic burnout. The ‘Undergraduate Life Stress Scale’ and ‘Learning Burnout Scale’ were used as research tools to collect data from 2640 students. Female students and upper year students reported higher values of life stresses. The self-identity stress, interpersonal stress, future development stress and academic stress could jointly predict student academic burnout.

Perera and Mcllveen (2014) conducted a study on 236 undergraduates to that the conceptual formulation that academic and psychological adjustment are associated with optimism. The result showed that optimism was a direct predictor of the greater use of engagement coping and better psychological adaptation to college transition. Further empirical test of mediation revealed that the relationships of optimism with academic and psychological adaptation were mediated by engagement coping.

Jameson (2014) conducted study to determine if an increase in hardiness and a decrease in perceived stress in junior baccalaureate nursing students occurred in those who participated in a hardiness intervention. The study was conducted on a sample of full time junior level baccalaureate nursing students. Analysis of pretest post test scores of non-equivalent experimental and control group showed statistically significant effect on decrease in perceived stress scores.
Kiand, Andrews, Steen, Supple and Gonzalez (2013) revealed that socio-economic stress has long been found to place youth at risk, with low family income conferring disadvantages in adolescent school achievement and success. This study investigated the role of socio economic stress on academic adjustment and pinpoints family obligation as a possible buffer of negative associations. Investigators examined direct and interactive effects at two time points in the same sample of Asian American adolescents-early high school (N=180, 9-10th graders; 60 % female) and 2 year later in late high school (n=156 11-12 graders, 87% of original sample). Results suggested that socio-economic stress is associated with poor academic adjustment, measured broadly through self-reported GPA, importance of academic success, and educational aspirations and expectations. Family obligations was positively related to adjustment and was found buffer the negative effects of socio-economic stress, but only during adolescents later high school years. Adolescents reporting more family obligation experienced less of the negative effects of financial stress on academic outcomes than those reporting lower obligation.

Kim, Yang, Ae.Jung and Lin (2013) conducted a study to identify the association among levels of persistent academic stress, appetite and dietary habits and to determine the specific types of sweet foods consumed by Korean high-school students according to their academic stress levels. 333 high school students in 10 to 12th grades in Kyunggi province in Korea was taken as sample. The result revealed that students with high stress level had larger meals than those students with low stress level and had a higher frequency of
sugar intake from the following food types: confectionaries, candies, chocolates, breads, and flavoured milk.

Ming-Te and Jacquelynne (2013) conducted a longitudinal study adopting a multidimensional prospective to examine the relationships between middle school student’s perception of school environment (structure support, provision of choice, teaching for relevance, teacher and peer emotional support), achievement motivation (academic self-concept and subject task value) and school engagement (behavioural, emotional and cognitive engagement) adopting a multidimensional perspective. Study on an urban sample of ethnically diverse adolescents indicated that student perceptions of distinct aspects of school environment contributed differentially to the three types of school engagements. These associations were fully or partially mediated by achievement motivation and student perceptions of the school environment influenced their achievement motivation and in turn influenced all three types of school engagement specifically.

Moghimislam, Jafari and Hosseini (2013) studied the effect of stress management on students’ academic achievement scores before and after interventions. The average difference between the pre-test and post test scores of group given intervention and group that does not given intervention was found to be significant. The study concluded that stress management training can lead to students academic achievement.

Seiffge-Krenke, Persike, Keraman, Cok, Herera, Rohail, Macek and Hyeyoun (2013) found that among 2000 adolescents from middle class families in six countries, adolescents from Costa Rica, Korea and Turkey
perceived parent related and peer-parent related stress greater than peer related stress, but stress levels in both relationship types were similar in Czech Republic, Germany and Pakistan. Female adolescents reported more peer-related stress than male adolescents.

Foret, Scult, Wilcher, Chudnofsky, Malloy, Hasheminejad and Park (2012) conducted a study on students of 10th and 11th grade at Nadeem High School. Fifty-four 10th graders were taken as intervention group using non-randomized cohort study with wait list. Students were given a 4-week, 8-session-based curriculum training by the BHIEI and surveys before and after the interventions were completed. Intervention group student’s levels of perceived stress and the anxiety were reduced as expected by the RR-based curriculum and students who participated in the intervention demonstrated a positive change in perceived stress, anxiety and health promoting behaviors.

Fried and Chapman (2012) found that students who used goal-oriented motivation regulation strategies were more resilient than others and contrasting results were obtained when investigating the ability of each emotion regulation strategy type to predict engagement and resilience. Students who used avoidant strategies developed resilience less likely than others.

Pederson (2012) using a stress-carry-over perspective examined the relationship between stress stemming from school and family domains and physical and mental health outcomes. 268 undergraduate men and women from a Midwestern university was the sample. OLS regression was used for analysis and separate questions were estimated for men and women. Men and women report higher school than family spillover, and women reported higher
school stress spillover than men. Regression models reported that both men and women showed more days of poor mental health when school spillover is high. Negative association was found with school spillover for women and with family spillover for men.

Talib and Zia-Ur-Rehman (2012) studied relationships between perceived stress and academic performance using correlation coefficient among 199 university graduates and undergraduate of Rawalpindi and Islamabad. Perceived stress was negatively correlated with academic performance of students and the mean score among low academic achiever versus high academic achiever as well as low stress level and high stress level group were found to differ significantly. Male and female students do not differ significantly in their stress but differ between engineering students and management science students based on perceived stress score.

Yusoff (2012) conducted study on students of Malaysian public university. 185 international students from various countries and regions were taken as sample to examine the relationship between self-efficacy, perceived social support and psychological adjustment of these international students. The results revealed that self-efficacy and only one dimension of perceived social support significantly selected students related with psychological adjustment.

Doron, Stephan, Maiano and LeScanff (2011) assessed coping strategies, academic motivation and achievement goals among 199 undergraduate students. Regression analysis showed that problem-focused coping is
positively predicted by identified regulation and negatively by motivation. Emotion focused coping in positively predicted by introjected regulation and motivation. Mastery approach goals positively contributed to problem-focused coping. Unique positive contribution was made by identified regulation and master approach goals to problem-focused coping and motivation was negatively related.

Elias, Ping and Abdullah (2011) selected students in a local university from different disciplinary areas as sample to investigate stress and academic achievement. 376 undergraduate students were selected through cluster sampling. Academic Achievement of the undergraduate students referred to their results, Grade Point Average (CPA) for the previous semester referred to academic achievement and College Undergraduate Stress Scale (CUSS) was used. The stress levels were compared based on their year of study in university, and their degree programs. The result showed that, the undergraduate students experienced moderate levels of stress and most sources of stress were from students academics. There existed a significant but weak negative relationship between undergraduate students’ stress level and their academic achievement.

Hasel, Abdolhoseini and Ganji (2011) a model hardiness training programme was investigated on 27 college students to determine whether perceived stress could be reduced and hardiness could be increased among college students. Then experimental group was given six-week hardiness training program. Analysis of pre-test and post test scores showed significant decrease in perceived stress level and significant increase in hardiness.
Liu and Lu (2011) examined relationship between Chinese school student’s stress in the school and their academic achievement on a sample of 466 Chinese school students. One class consisted of 87% of students whose academic stress negatively predicted their academic achievements. For the 13% of students, their stress did not predict their academic achievement. It was also found that gender did not moderate the relationship between student’s stress in the school and their academic achievements.

Liu and Lu (2011) study on longitudinal relationship between adolescents stress in school and the change rates of their academic achievement showed that students’ stress from teacher-student interaction significantly predicted the change rates of their academic achievement.

Parto and Besharat (2011) studied the relationship of self-efficacy and problem solving with mental health in adolescents. 914 students completed the general self-efficacy scale, problem solving inventory, the coping scale and the general health questionnaire. Results exposed that self-efficacy and problem solving were the powerful direct predictors of mental health.

Sadaghiani (2011) 300 female students in Tabriz senior high schools were selected to study the relations between stressors, hardiness and biological, mental, cognitive syndrome. The findings revealed a positive and significant correlation between stress, and biological, mental and cognitive syndromes and there was a negative correlation between components of hardiness and mental, biological and cognitive syndromes.

Tan and Yates (2011) measured parent, teacher and self expectations as sources of academic stress in Asian adolescents. Tool was administered to
176 Singaporean secondary and college students one month before their major examinations. Tools used were the Academic Expectations Stress Inventory AESI, developed by Ang and Huan (2006). The item thresholds showed the AESI measurement of the student trait range adequately and provided an understanding of role of parents, teachers and self expectations as sources of academic stress among students from a CHC background.

Meera and Noora (2010) conducted a survey on a representative sample of 520 secondary school students of Malappuram, Thrissur and Kozhikode district of Kerala to know about the effect of life style factors on Academic Stress. The result revealed that there existed significant effect between the life style factors on Academic Stress fro total sample and subsamples based on locale, gender and type of management.

Muola (2010) conducted study on randomly selected 235 standard eight Kenyan pupils from 6 urban and rural primary schools of Machakos district. Information on the pupils levels of academic motivation and home environment were collected using simple profile (SP) and home environment questionnaire. Result revealed significant positive relationship between six of the home environment factors that is fathers occupation, mothers occupation, fathers education, mothers, education, family size and learning facilities at home and academic achievement motivation. The only factor that was not significantly related to academic motivation was parental encouragement.

Leung, Yeung and Wong (2010) studied the role of paternal support in the relation between Academic Stress and mental health among 1,171 fifth
and sixth graders of primary schools in Hong Kong. The results revealed that academic stress was a risk factor that heightened student anxiety levels and that parental emotional support was a protective factor that contributed to better mental health among children. However, during times of high academic stress paternal informational support delivered to children appeared to higher student anxiety levels.

Delahaij, Guillard and Dan (2010) investigated coping style and coping self-efficacy as mediating variables. In the longitudinal design, hardiness, coping style and coping self-efficacy and responses (i.e., appraisal and coping behavior) to a stressful military exercise were assessed at different points in time during basic military training in two independent samples (n=109, n=98). The result revealed that coping self-efficacy mediated the relationship between hardiness and appraised, whereas coping style mediated the relationship between hardiness and coping behaviour.

Krypel and King (2010) investigated the meanings that undergraduate students make of their education and how these meaning relate to student’s perceived stress, styles of coping with stress and optimism. Participants completed a meaning of education questionnaire, the perceived stress scale, the COPE (a measure of coping styles) and the life Orientation Test Revised. The result revealed that optimists were less likely to see education on a source of stress or an escape and students who used disengagement coping styles were more likely to see education as a source of stress or as an escape.

Bakker, Ormel, Verhulst and Oldehinkel (2010) conducted study on 2,084. Dutch young adolescents to test whether boys and girls are sensitive to
different types of peer stressors and peer stress was associated with different mental health problems in boys and girls. The result found that peer stress is likely to be associated with different mental health problems in boys and girls.

Leung and He (2010) conducted study among 695 fifth and 6th grades from four major districts of Shanghai to examine the interaction of academic stress and student resourcefulness on subject grade and to identify the factors of parental support that contribute to student resourcefulness. Result revealed that student resourcefulness moderated Academic Stress and subject grade perceived parental emotional support and maternal informational support contributed significantly to student resourcefulness.

Hystad, Eid, Labery, Johnsen and Bartone (2009) studied the capacity of personality hardiness to buffer the relationship between academic stress and health. Negative association of hardiness with both academic stress and number of health complaints, and that hardiness moderated the association between academic stress and health was revealed through the study.

Sing and Bussey (2009) presented the reliability and validity of a newly developed measure designed to assess children’s self-efficacy for coping with peer aggression. 2,161 participants who ranged in age from 10-15 years represented the sample. The exploratory and confirmatory factor analysis supported the four conceptualized coping self-efficacy domains: Self-efficacy for proactive behaviour, self-efficacy for proactive behaviour, self-efficacy for avoiding aggressive behaviour, self-efficacy for avoiding self-blame and self-efficacy for victim-role disengagement. Greater self efficacy was found to be associated with less social anxiety, cognitive depression and externalizing symptoms.
Pang, Villacortai, Chin and Morrison (2009) studied 106 American and 79 Singaporean students to find out relations between implicit and explicit Hope of Success (HS) and fear of failure (FF) and memory and liking for successful and unsuccessful peers. Implicit motives were expected to predict memory and explicit motive to predict liking of peers. Result supported the implicit-explicit motive distinction as well as a link between its and the successful peer and between FF and unsuccessful peer. Result also indicated that achievement motives affect interaction and reaction towards peer and provide evidence for differential validity of implicit and explicit motives.

Huan, See, Ang and Har (2008) examined the contributing role of the different aspects of adolescent concerns on the academic stress of youths in Singapore. Adolescent concerns measure and Academic Expectation Stress Inventory was used to collected data and considered four different aspects of adolescent concerns namely: family, personal, peer and school concern. From result for boys and girls only the scores of the personal concerns subscale were positively associated with the academic stress arising from self and other expectations. School related concerns were predictive of academic stress arising from other expectations for girls and obtained significantly higher scores on the Academic Expectations Stress Inventory than boys.

Hampel, Meier and Kummel (2007) investigated the effectiveness of a school-based universal preventive stress management training programme for early and middle adolescents. The intervention effects of age (early versus middle adolescents) and gender on perceived stress, interpersonal coping and self-efficacy prior, immediately after as well as 3 months after the
intervention was found. The result from the sample, 320 adolescents (age 10-14) participated in the study. The result showed that experimental group scores higher on perceived self efficacy compared to the control group at follow up assessment. Less perceived stress and more adaptive coping at the post and follow up assessment was showed by the experimental group.

Ang and Huan (2006) collected data of 1,108 Asian Adolescents (12-18 age group) from a secondary school in Singapore. Using Baron and Kenny’s (J. Pers Soc Psychol, 51: 1173-1192, 1986) framework, this study tested the prediction that adolescent depression mediated the relationship between academic stress and suicidal ideation in four-step process. Result showed that previously significant relationship between academic stress and suicidal ideation was significantly lower in magnitude when depression was included.

Ooi, Ang, Fung, Wong and Cai (2006) conducted study on a clinical sample of 91 boys with descriptive behaviour disorder ranging from 8 to 12 years of age. Result of multiple regression analyses found that the quality of parent-child attachment significantly predicted parent-rated aggression, social stress and self-esteem. Lower levels of parent-rated aggression and lower level of social stress and higher levels of self-esteem were associated with higher quality of parent-child attachment.

Chong, Huan, Yeo and Ang (2006) investigated the respective contributions of perceived support from parents, peers, and school to the psychological adjustment and the mediating role, dispositional optimism
plays on the sample consisting of 519 thirteen year-old Asian Adolescents from a middle school in Singapore. Results revealed are important contextual factors influencing the psychological well-being of these adolescents. Dispositional optimism partially mediates support from each of these three sources and psychological adjustment.

Huan, Yeo, Ang, & Chong (2006) investigated the role of optimism together with gender on students perception of academic stress. Collected data was two self reports namely the life orientation test and the academic expectation stress inventory from 430 secondary school students in Singapore. Result revealed a significant negative relationship between optimism and academic stress in students. Gender was not found to be a significant predictor of academic stress.

Study conducted by McGeorge, Samter and Gillihan (2005) found that Academic Stress is related with a variety of negative health outcomes, including depression and physical illness. The capacity of supportive communication reports as being received from friends and family to buffer the association between academic stress and health was studied. Sample of college students completed measurers of academic stress, supportive communication received (emotional and informational) and health status (depression and symptoms of physical illness). Result revealed that informational support increased, positive association between Academic Stress and Depression decreased as informational support increased and emotional support was negatively associated with depression across levels of academic stress.
LePine, LePine and Jackson (2004) conducted a study on 696 learners and found that stress associated with challenges in the learning environment was positively related with learning performance and that stress associated with hindrances in the learning environment was negatively related with learning performance. These learning performance relationship were partially mediated by exhaustion and motivation to learn. Stress was positively related to exhaustion and exhaustion showed negative relation to learning performance. Hindrance stress was negatively related to motivation to learn and challenge stress was positively related to motivation to learn and motivation to learn was positively related to learning performance.

Torsheim & Wold (2002) investigated the relationship between shared psychosocial school environment and subject health complaints. A representative sample of 1585 Norwegian grade 8 students (mean age 13.5 years) from 82 school classes completed scales on health complaints, academic stress, the teacher and classmate support scale, decision control and noise and disturbances in class to investigate the relationship between shared psychological school environment and sub health complaints. Analysis showed that level of health complaints varied across school classes. School class differences in psychosocial environment accounted for 40% of the between school class variance in health complaints. Test of cross-level interactions showed a significant statistical interaction between mean school class level of classmates support and individual level of academic stress.

Beasley, Thompson and Davidson (2003) tested the sample of mature age university students (N=187) completing measures of life event stress and traumatic life experiences (independent variables), cognitive hardiness and
coping style (moderator variables) and general health, somatization, anxiety and depression (dependent variables). The direct effects and buffering models in relation to cognitive hardiness and coping for general health and psychological functioning was found. Results showed a direct effects model of the relationship between life stress and psychological health and supported for a buffering model in which cognitive hardiness moderated the effects of emotional coping or adverse life events on psychological distress.

Credit and Garcia (1999) in a study analyzed that there was high level stress among middle and high school students which adversely affected various situations including academic and social. A stress reduction program including parent newsletters, teacher-led relaxation exercises and implementation of a time and stress management program was administered. The program included lessons in role-playing and problem solving, worksheets and stress logs. Post intervention data indicated that students internalized coping techniques for stress.

Rajendran and Kaliappan (1990) conducted a factorial study of sources of students academic stress. A sample of 100 high school boys whose age between 12-15 years were selected. Factorial analysis showed that academic stress is the outcome of personal inadequacy, fear of failure, interpersonal difficulties and lack of study facilities.

Studies on Bibliotherapy

Eliasa and Iswanti (2014) investigated the influence of bibliotherapy with the career topic on the increase of the students career motivation of guidance and counselling. Classroom Action Research (CAR) based on
research method by Kemmis and McTaggart model was conducted in one cycle. The data were collected by observation, interview, documentation and questionnaire from students of Guidance and Counselling Department of faculty of education sciences of Yogyakarta state university and subsample were selected using the criteria: (1) fifth semester students, (2) those who have taken career counseling course and (3) those who have problems with career shown in the questionnaire as under population average. The qualitative result from observation and interview showed that bibliotherapy within career topic leads the students to have the positive change of expression, gesture and self confidence to become a counselor in the future. The result of qualitative analysis of questionnaire revealed a career motivation aspect which means that the bibliotherapy treatment has succeeded in enhancing the knowledge and utility of textbook for counseling. Therefore it is concluded from the study that bibliotherapy within career topic could be developed to overcome the career problems, especially career motivation.

Sharma, Sood, Prasad, Loehrer, Schroeder, & Brent (2014) explored the effectiveness of bibliotherapy to decrease stress and anxiety and increase resilience and mindfulness among 37 employer at a large medical centre. The effectiveness of self directed stress Management and Resiliency Training (SMART) was used for 12 weeks. Brief self directed program to reduce stress and to enhance resilience and mindfulness proved effective in enhancing resilience, mindfulness and quality of life and decreasing stress and anxiety.

Scogin, Fairchild, Yon, Welsh and Presnell (2013) found the impact of two self-administered treatments namely cognitive bibliotherapy and
bibliotherapy plus memory training to a waitlist control condition on measures of memory functioning and depression. The group included older adults experiencing depressive symptom and memory complaints. The result showed partial support for cognitive Bibliotherapy as a treatment for depressive symptom, while memory training did not produce improvements.

Carlbring, Maurin, Sjomark, Maurin, Westling, Ekselius, Cuijpers, and Anderson (2011) tested the difference between giving a full book as therapy and receiving one of individual chapter every week as therapy. The treatments showed promising results with effect maintained up to 2 years and within group effect size between 0.95 and 1.11. Results also revealed that when treatment is guided by therapist pacing of text material in bibliotherapy for panic disorders is not needed.

Chai (2011) explored the use of bibliotherapy delivered by teachers in a natural classroom environment as an intervention to increase social problem solving skills in young children. 96 students from kindergarten and first grade students from classroom in a demographically diverse elementary school located in a large urban school district was the sample. Treatment group were given bibliotherapy intervention with reinforcement activities while the wait, but control group received no intervention. Pre-test – post test experimental design was analyzed using One way ANOVA, ANCOVA and correlation. The result showed that the social problem-solving skills significantly higher than the wait-list control group.

Muto, Hayes and Jeffcoat (2011) conducted study on 70 Japanese international students in Western University in US. Experimental group
received a Japanese translation of a broadly focused Acceptance and Commitment Therapy (ACT) self help book. Experimental group showed significantly better general mental health of post and follow up studies. Moderately depressed or stressed and severely anxious students improved compared to those not received the book. Overall data suggested improvement in mental health and psychological flexibility of Japanese international students who received ACT bibliotherapy.

Oshiotse and Marie-Louse (2011) studied the role of bibliotherapy in value system formation on 1, 372 (746 males and 626 females) undergraduates in seven faculties of the University of Ibadan, Nigeria. The chi-square statistical method showed significant determining influence of bibliotherapy on value system formation with respect to group-self-society-environment and nation-oriented values by undergraduates.

Betzalel and Shechtman (2010) compared the outcomes of cognitive and affective bibliography treatment given to 79 children and adolescents in a residential home in Israel. Revised Children’s Manifest Anxiety Scale by Reynolds and Richmond (1985) was used to measure anxiety and Achenbuch’s (1991) Teacher’s Report form was used to measure adjustment symptoms. Result indicated reduced social anxiety in both treatment groups compared to control group and reduced adjustment symptoms was found only under affective Bibliotherapy conditions.

Harvey (2010) investigated the use of bibliotherapy in a regional Australian city with adolescents who have chronic illness. Study explored responses of members of welfare team within secondary schools to questions
on how books are used with students experiencing issues. Findings indicated that though a formal process of bibliotherapy was not concluded in schools, its central phenomenon of reader forming a relationship with a book and then changing in some significant way as a result is a concept that most participants understood and attempted to utilize.

Karacan and Guneri (2010) examined the effect of self-esteem enrichment bibliocounseling program on the self-esteem. Out of 66 sixth grade students 24 (13 female, 11 male) were assigned as treatment group and control group. Eight week self-esteem enrichment bibliocounseling program was given to treatment group. Mixed design repeated-measures analysis of variance (ANCOVA) showed a significant increase in self esteem scores of treatment-group subjects, as measured by the Coopersmith Self-Esteem Inventory (CSEI).

Liu, Chen, Li, Wang, Mok and Huang (2008) studied the efficacy of cognitive bibliotherapy in the treatment of depressive symptoms. Sample consisted of 52 Chinese individuals from Tiwan with depressive symptom. Sample were assigned to treatment condition or delayed treatment condition. Participants were given pre-treatment and post-treatment and 3-month follow-up. Results revealed that cognitive bibliotherapy may be promising treatment option for Chinese individuals with symptoms of depression.

Shechtman (2007) studied the contribution of Bibliotherapy to the counseling of aggressive boys by novice counselor in Israel. 3 Boys from 24 classroom were randomly assigned to 1 of 3 groups, Integrative counseling (IC); Integrative Counseling Plus bibliotherapy (ICB), or no counseling.
Result revealed an increased empathy and reduced aggression in IC and ICB group when compared with control group. A difference between IC and ICB was found for empathy and therapist satisfaction. ICB condition, boys showed higher stages of change and had higher frequency of insight and therapeutic change compared with boys in IC condition.

Floyd, Scogin, McKendree-Smith, Floyd and Rokke (2004) studied effectiveness of individual cognitive psychotherapy and bibliotherapy on 31 community residing older adults aged 60 or above. Three month follow up study showed that bibliotherapy group improved after post treatment. Result suggested the effectiveness of both individual psychotherapy and bibliotherapy in treatment of depression in older adults.

Shechtman (2000) tested the effectiveness of an intervention designed to reduce aggressive behaviour of adolescent children. 70 special education student’s behaviour problem in 5-9 grades living in Israel were taken as sample. A short-term multidimensional programme utilizing bibliotherapy and classifying process was introduced and was found to be effective in promoting behaviour adjustment and reducing aggression.

Shechtman (1999) tested the effectiveness of utilizing bibliotherapy or its primary mode of intervention on the aggressive boys. The effectiveness of treatment was tested in single subject design by comparing treatment children and their matched counterparts. Results showed reduced aggression in treatment children than control children by self and teacher report. Result also showed increased constructive behaviour in group of all participants.
Long, Rickert and Aschraft (1993) investigated the effectiveness of bibliotherapy as an adjunct to stimulant medication in the treatment of children with ADHD. Subjects were randomly assigned as experimental group and control group. Parents of experimental group were given a written protocol (bibliotherapy) outlining behavioural techniques for managing oppositional child behaviour. The results revealed significant difference favouring the experimental group on standardized measures of the intensity of behaviour problems in the home, parental knowledge of behavioural principles and teacher rating of behaviour. Bibliotherapy approach is an inexpensive adjunct to stimulant medication in the treatment of ADHD when individual or group behaviour management training is not feasible.

**Studies on Muscle Relaxation**

In an experimental study conducted by Flora, Monir, Bita and Shahnaz (2013). 40 girls students of 7th grade were selected using random cluster sampling from one middle school in Tehran and divided into test and control groups by random assignment. Initially they were assessed by working memory capacity test. Then the test group through 12 educational sessions (one hour sessions, 3 sessions per week) was taught relaxation techniques, and no such education was given to control group. Upon completion of educational sessions, both experimental and control groups were assessed again with the working memory capacity test. In the case of academic achievement, the grade point average of the first semester for pre-test were used. multivariate analysis of covariable showed that relaxation training increase working memory capacity and its components, storage and processing
and academic achievement. Therefore, relaxation training is a useful technique for student progress.

Regehr, Glancy and Pitts (2013) conducted a systematic review of literature and meta-analysis to examine the effectiveness of interventions aimed at reducing stress in university students. Twenty four studies including 1931 students included in meta-analysis, cognitive, behavioural and mindfulness interventions were found to be effective in reducing stress of university students was revealed by the study.

Srilekha, Soumendra and Chattopadhyay (2013) conducted a study on sixty-four primary school going boys of the Indian sub-continent in the age range of 9-12 years having high trait anxiety and attention-deficits. Half of the sample were taken from residential school in Bangladesh and the other half from residential school in India. The experimental group was given abbreviated Progressive Muscle Relaxation and the control group was given no intervention. Both groups were given pre-intervention assessment of attentive capacity, electrical muscle potentiality and different variables of conductance measure. There after experimental group were introduced to the training of APMR for 5 mins/day; three days/week for a period f two months during the afternoon sessions under the guidance of a qualified and trained instructor. The result revealed that long-term, practice of APMR was effective in reducing anxiety level and in developing better attentive capacity in the children of both countries, who are exposed to respective intervention.

Ricks, Naquin, Vest, Hurtt and Cole (2011) provided stress management techniques via podcasts in health and stress classes. Seven techniques were
practiced for seven days statistically significant increases in relaxation was reported for five of the seven techniques positively. Self reports included perceptions of decreased stress symptoms after practicing the strategies.

Dehghan-nayeri and Adib-Hajbaghery (2011) studied the effect of relaxation techniques on anxiety and the quality of life of female dormitory students. A non randomized controlled trial was conducted on 200 students of 4 female dormitories. 200 students of four dorms of Tehran University of Medical Sciences were randomly allocated to the experimental and control groups. The tools used were the Speilberger Inventory and a modified version of WHO quality life questionnaire. After two months relaxation technique for experimental group post test was conducted on both groups. Significant differences between anxiety and quality of life was noticed for the two groups after the intervention and overall quality of life score was significantly higher in experimental group.

Larson, El Ramahi, Conn, Estes, and Ghibellini (2010) conducted a study on 177 third grade students of two Midwestern public elementary schools to reduce the negative effect of self perceived test anxiety. Students at one school were taught relaxation techniques while control group received no training. The Westside test anxiety scale, elevator breathing and guided relaxation were the tools used. The result showed that the relaxation intervention had a significantly reduce test anxiety.

Balaram and Nagendra (2010) investigated the effect of two year based relaxation techniques namely cyclic meditation (CM) and spine rest (SR) using the six letter collection task (SLCT). The sample of 208 school students
(132 boys, 76 girls) of 13-16 years were assessed on SLCT before and immediately after both yoga based relaxation techniques. The net score change in CM session was significantly larger than the change in SR. After the practice, the total and net scores showed significant increase, inspite of gender and age. As assessed by SLCT, CM & SR led to improvement in performance but the change caused by CM was greater than SR.

Agree, Danoff-Burg, and Grant (2008), studied a sample of forty three adults from the community and randomly assigned five week Mindfulness Mediation Course MM (n=19) or PMR (n=24) courses. After responding to flyers and other advertisements for a free stress management course there existed statistically significant reduction from pre treatment to post treatment in general psychological distress for both groups.

Winterdyk, Ray, Lafave, Flessati, Huston, Danelesko and Murray (2008) tested the effectiveness of four distinct mind/body interventions on reported perceived stress, anxiety and health promoting behaviours in college students. There were four experimental group namely nutritional, exercise, relaxation or cognitive behavioural therapy. There were almost 18 students per experimental group and 18 students in control group. the tools used were The Symptom Checklist-90-Revised (SCL-90) Speilberger State-Trait Anxiety Inventory (STAI). ANOVA results showed that all the mind/body training methods proved to assist college students in their perceived levels of stress.

Bussone, Grazzi, D’Amico, Leone, and Adrasik (1998) conducted study on Juvenile tension-type headache sufferers by randomly assigning them to biofeedback assisted relaxation or relaxation placebo and followed one year.
After treatment, both groups showed reduced headache (approximately 50%). Over time, children receiving biofeedback assisted relaxation continued to improve and were superior to the control condition at a 6 and 12-month follow-up (86% versus 50%) over time.

Larson and Carlsson (1996) conducted a study on 26 (10-15 years old) school children with chronic tension-type headache by randomly assigning to a school based nurse administered relaxation training and no treatment condition. Results revealed that headache activity in the children treated with relaxation training was scientifically more reduced than among those in the no-treatment control group at post-treatment as well as the 6 month follow up.

Doan, Plante and Michael (1995) studied a sample of 52 undergraduate students who were randomly assigned to: aerobic exercise, relaxation training or control (i.e., magazine reading) to compare effect of these activities on coping with test taking anxiety. Anxiety measured three times during the experiment using an abbreviated version of the multiple affect adjective checklist and found that aerobic exercise and relaxation training were associated with reduction of general and test taking anxiety.

Kiselica, Baker, Thomas and Reedy (1994) found the effectiveness of preventive stress inoculation program consisted of progressive muscle relaxation, cognitive restructuring and assertiveness training for adolescents (n=48). Significantly greater improvement on self report measures of trait anxiety and stress related symptoms were shown by experimental group.

Kwako (1981) studied a sample of 16 hyperactive, learning disabled 16 boys (8 to 12 years old) from a private school providing special education
was assigned randomly into an experimental and control group to study the effectiveness of a relaxation therapy program. Relaxation procedures Jacobson and Bruno were done twice weekly for 11 weeks during 20 minute sessions. The developmental test of visual-motor integration, motor accuracy subtest of Southern California, Sensory Integration Tests, Abbreviated Parent and Teacher Questionnaire, House-Tree Person Test and Sophistication of Body Concept Scale were used to the study. Result concluded that relaxation therapy has a direct effect upon the hyperactivity syndrome.

### Summary of Related Studies

**Related Studies on Academic Stress**

<table>
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<th>Year</th>
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<th>Major Findings</th>
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<td>Lin &amp; Huang</td>
<td>Life Stress and Academic Burnout</td>
<td>Students who have self identity stress, interpersonal stress and academic stress could jointly predict student academic burnout.</td>
</tr>
<tr>
<td>2014</td>
<td>Perera and McIlveen</td>
<td>The role of optimism and engagement coping in college adaptation: A career construction mode</td>
<td>The relationships of optimism with academic and psychological adaptation were mediated by engagement coping.</td>
</tr>
<tr>
<td>2014</td>
<td>Jameson</td>
<td>The effect of hardiness educational intervention on hardiness and perceived stress of junior baccalaureate nursing students</td>
<td>Students who participated in a hardiness intervention showed decrease in perceived stress.</td>
</tr>
<tr>
<td>Year</td>
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<tr>
<td>2013</td>
<td>Kim, Yang, Ae.Jung and Lin</td>
<td>Academic stress levels were positively associated with sweet food consumption among Korean high-school students.</td>
<td>Students with high stress level had larger meals and had higher frequency of sugar intake from the following food types: confectionaries, Candies, Chocolate, breads, and flavoured milk.</td>
</tr>
<tr>
<td>2013</td>
<td>Ming-Te and Jacquelynne</td>
<td>School context, achievement motivation and academic engagement: A longitudinal study school engagement using a multi-dimensional perspective</td>
<td>Students perceptions of the school environment influenced their achievement motivation and inturn influenced all three types of school engagement namely behavioural, emotional and cognitive.</td>
</tr>
<tr>
<td>2013</td>
<td>MoghimIslam, Jafari and Hosseini</td>
<td>Impact of stress management training on the girl high school students academic achievement</td>
<td>Stress management training can lead to students achievement.</td>
</tr>
<tr>
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<td>2013</td>
<td>Sciffge-Krenke, Persike, Keraman Cok, Herera, Rohail, Macek and Hyeyoun</td>
<td>Stress with parents and peers: How adolescents from six nations cope with relationship stress.</td>
<td>Peer related stress was reported more by female adolescents.</td>
</tr>
<tr>
<td>2012</td>
<td>Foret, Scult, Wilcher, Chudnofksy, Malloy, Hasheminejad and Park</td>
<td>Integrating a relaxation response-based curriculum into a public high school in Massachusetts.</td>
<td>Relaxation-response based curriculum reduced the levels of perceived stress and the anxiety of the students.</td>
</tr>
<tr>
<td>2012</td>
<td>Fried and Chapman</td>
<td>An investigation into the capacity of student motivation and emotion regulation strategies to predict engagement and resilience in the middle school classroom</td>
<td>Students who used goal-oriented motivation regulation strategies were more likely than others to be resilient.</td>
</tr>
<tr>
<td>2012</td>
<td>Pederson</td>
<td>Stress carry-over and college student health outcomes.</td>
<td>Women’s sleep hours are negatively associated with school stress spillover and men’s sleep hours are negatively associated with family stress spillover.</td>
</tr>
<tr>
<td>2012</td>
<td>Talib and Zia-Ur-Rehman</td>
<td>Academic performance and perceived stress among university students</td>
<td>Perceived stress was found on an important factor that needs university administration, faculty and parents focus on effective psychoanalysis service along with stress management programme that could be useful for achieving academic success.</td>
</tr>
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<tr>
<td>2012</td>
<td>Yusoff</td>
<td>Self-efficacy, perceived social support and psychological adjustment in international undergraduate students in a public higher education institution in Malaysia</td>
<td>Self-efficacy has significant relationship with psychological adjustment.</td>
</tr>
<tr>
<td>2011</td>
<td>Elias Ping and Abdullah</td>
<td>Stress and academic achievement among undergraduate students in University Putra, Malaysia</td>
<td>Most of students stress were from their academics and there exist negative relationship between stress level and academic achievement.</td>
</tr>
<tr>
<td>2011</td>
<td>Liu and Lu</td>
<td>Longitudinal analysis of Chinese high school student’s stress in school and academic achievement</td>
<td>Academic stress negatively predicted academic achievement.</td>
</tr>
<tr>
<td>2011</td>
<td>Liu and Lu</td>
<td>The Chinese high school student’s stress in the school and academic achievement</td>
<td>Stress is a risk factor in students academic development.</td>
</tr>
<tr>
<td>2011</td>
<td>Doron, Stephan Maiano, and LeScanff</td>
<td>Motivational predictors of coping with academic examination.</td>
<td>Identified regulation and mastery approach goals made a unique positive contribution to problem focused coping.</td>
</tr>
<tr>
<td>2011</td>
<td>Sadaghiani</td>
<td>The role of hardiness in decreasing the stressors and biological, cognitive and mental reactions</td>
<td>There was positive correlation between stress and biological, mental and cognitive syndromes and negative correlation between components of hardiness and biological, mental and cognitive syndrome</td>
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<tr>
<td>2011</td>
<td>Hasel Addhoseini and Ganji</td>
<td>Hardiness training and perceived stress among college students</td>
<td>Model hardiness training improved hardiness and decreased perceived stress level.</td>
</tr>
<tr>
<td>2011</td>
<td>Parto and Besharat</td>
<td>The direct and indirect effects of self-efficacy and problem solving on mental health in adolescents: Assessing the role of coping strategies as mediating mechanisms.</td>
<td>Self efficacy and problem solving were powerful direct predictors of mental health</td>
</tr>
<tr>
<td>2011</td>
<td>Tan &amp; Yates</td>
<td>Academic expectations as sources of stress in Asian students</td>
<td>Parents, teachers and self expectations are sources of academic stress.</td>
</tr>
<tr>
<td>2010</td>
<td>Meera and Noora</td>
<td>Effect of life style factors on academic stress among higher secondary school students of Kerala</td>
<td>Life style factors affected academic stress.</td>
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<tr>
<td>2010</td>
<td>Muola</td>
<td>A study of the relationship between academic achievement motivation and environment among standard eight pupils</td>
<td>Student motivation to do well in exam depends on home environment.</td>
</tr>
<tr>
<td>2010</td>
<td>Leung, Yeung and Wong</td>
<td>Academic stressors and anxiety in children: The role of parental support</td>
<td>Academic stress was a risk factor that heightened students anxiety levels and parental emotional support was a protective factor that contributed to better mental health.</td>
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<tr>
<td>2010</td>
<td>Delahaij, Guillard and Dan</td>
<td>Hardiness and the response to stressful situations: Investigating mediating process.</td>
<td>Self-efficacy mediated the relationship between hardiness and appraisal and coping style mediated the relationship between hardiness and coping behaviour.</td>
</tr>
<tr>
<td>2010</td>
<td>Krypel and King</td>
<td>Stress, coping styles and optimism: Are they related to meaning of education in student’s lives?</td>
<td>Optimist Less Likely See education as a source of stress or as an escape.</td>
</tr>
<tr>
<td>2010</td>
<td>Bakker, Ormel, Verhulst and Oldehinkel</td>
<td>Peer stressors and gender differences in adolescents’ mental health</td>
<td>Peer stress is likely to be associated with different mental health problems in boys and girls.</td>
</tr>
<tr>
<td>2010</td>
<td>Leung and He</td>
<td>Resourcefulness: A protective factor buffer against the academic stress of school-aged children</td>
<td>Students resourcefulness moderated academic stress and parental emotional support and maternal informational support contributed significantly to students resourcefulness</td>
</tr>
<tr>
<td>2009</td>
<td>Hystad, Eid, Laberg, Johnsen and Bartone</td>
<td>Academic stress and health: Exploring the moderating role of personality hardiness</td>
<td>Hardness was negatively associated with academic stress and number of health complaints.</td>
</tr>
<tr>
<td>2009</td>
<td>Sing and Bussey</td>
<td>The development of a peer aggression coping self-efficacy scale for adolescents</td>
<td>Greater self-efficacy was found to be associated with less social anxiety, cognitive depression and externalizing symptoms.</td>
</tr>
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<tr>
<td>2009</td>
<td>Jerusalem and Hessling</td>
<td>Mental health promotion in schools by strengthening self-efficacy</td>
<td>Individualisation of task demands, performance feedback, transparency of teachers demands and evaluation criteria are beneficial for student’s school self-efficacy which is positively connected with coping stress.</td>
</tr>
<tr>
<td>2009</td>
<td>Pang, Villacortai, Chin and Morrison</td>
<td>Achievement motivation in the social context: Implicit and explicit hope of success and fear of failure predict memory for the liking of successful and unsuccessful peers</td>
<td>Achievement motives affect interaction and reaction towards peer and provide evidence for differential validity of implicit and explicit motives.</td>
</tr>
<tr>
<td>2008</td>
<td>Huan, See, Ang and Har</td>
<td>The impact of adolescent concerns on their academic stress</td>
<td>For adolescent boys and girls personal concerns were positively associated with academic stress and for girls school related concerns were also predictive of academic stress.</td>
</tr>
<tr>
<td>2007</td>
<td>Hampel, Meier, Kummel</td>
<td>School-based stress management training for adolescents: Longitudinal results from an experimental study</td>
<td>The students who underwent stress management training programme showed less perceived stress and more adaptive coping.</td>
</tr>
<tr>
<td>2006</td>
<td>Ang and Huan</td>
<td>Relationship between academic stress and suicidal ideation: Testing for depression as a mediator using multiple regression</td>
<td>Depression was a partial mediator in reducing the relationship between academic stress and suicidal ideation.</td>
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<tr>
<td>2006</td>
<td>Ooi, Ang, Fung, Wong and Cai</td>
<td>The impact of parent-child attachment on aggression, social stress and self-esteem.</td>
<td>Higher quality of parent-child attachment was associated with lower levels of parent-rated aggressing, lower level of social stress and higher levels of self esteem.</td>
</tr>
<tr>
<td>2006</td>
<td>Chong, Huan, Yeo and Ang</td>
<td>Asian adolescent’s perception of parent, peer, and school support and psychological adjustment: The mediating role of dispositional optimism.</td>
<td>Positive supportive relationship with parents, peer, school and optimism influence the psychological well-being of adolescent.</td>
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<tr>
<td>2006</td>
<td>Huang, Yeo, Ang &amp; Chong</td>
<td>The influence of dispositional optimism and gender on adolescents’ perception of academic stress</td>
<td>Negative relationship exists between optimism and academic stress.</td>
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<tr>
<td>2005</td>
<td>McGeorge Samter and Gillihan</td>
<td>Academic stress, supportive communication and health</td>
<td>Informational support decreased academic stress and depression.</td>
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<tr>
<td>2004</td>
<td>Lepine, Lepine and Jackson</td>
<td>Challenge and hindrance stress: Relationship with exhaustion, motivation to learn and learning performance</td>
<td>Hindrance stress was negatively related to motivation to learn, challenge stress was positively related to motivation to learn and motivation to learn was positively related to learning performance.</td>
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<tr>
<td>2002</td>
<td>Torsheim and Wold</td>
<td>School-related Stress, support and subjective health complaints among early adolescents: A multilevel approach</td>
<td>Shared school class contextual factors have stress moderating effect on adolescent health complaints.</td>
</tr>
<tr>
<td>1999</td>
<td>Credit and Garcia</td>
<td>A study of relaxation techniques and coping skills with moderately to high stressed middle and high school students</td>
<td>Stress management program including role-play, problem solving, worksheets and stress log indicated that students internalized coping techniques for stress.</td>
</tr>
<tr>
<td>1990</td>
<td>Rajendran and Kaliappan</td>
<td>A factorial study of source of students academic stress</td>
<td>Academic stress is found to be the outcome of personal inadequacy, fear of failure, interpersonal difficulties and lack of study facilities.</td>
</tr>
</tbody>
</table>

**Related Studies on Bibliotherapy**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>2014</td>
<td>Eliasa and Iswanti</td>
<td>Bibliotherapy with the career topic to increase the students career motivation of guidance and counseling</td>
<td>Bibliotherapy within career topic could be developed to overcome the career problems, especially career motivation.</td>
</tr>
<tr>
<td>2014</td>
<td>Sharma, Sood, Prasad, Loehrer, Schroeder and Brent</td>
<td>Bibliotherapy to decrease stress and anxiety and decrease resilience and mindfulness: A pilot study.</td>
<td>Improvement in perceived stress, resilience, mindfulness anxiety and quality was observed after giving bibliotherapy.</td>
</tr>
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<tr>
<td>2013</td>
<td>Scogin, Fairchild, Yon, Welsh and Presnell</td>
<td>Cognitive bibliotherapy and memory training for older adults with depressive symptoms</td>
<td>Cognitive bibliotherapy is a treatment for depressive symptom.</td>
</tr>
<tr>
<td>2011</td>
<td>Carlbring, Maurin, Sjomark, Maurin, Westling, Ekselius, Cuijpers and Anderson</td>
<td>All at once or one at a time? A randomized controlled trial comparing two ways to deliver</td>
<td>Bibliotherapy was found effective for panic disorders.</td>
</tr>
<tr>
<td>2011</td>
<td>Oshioiste and Marie-Louse</td>
<td>The role of bibliotherapy in value system formation by undergraduates in the University of Ibadan, Nigeria.</td>
<td>Bibliotherapy has significant determining influence on value system formation of undergraduates.</td>
</tr>
<tr>
<td>2010</td>
<td>Betzalel and Shechtman</td>
<td>Bibliotherapy treatment for children with adjustment difficulties: A comparison of affective and cognitive bibliotherapy</td>
<td>Affective Bibliotherapy and cognitive bibliotherapy reduced social anxiety and affective bibliotherapy reduced adjustment symptoms and was found to be more effective.</td>
</tr>
<tr>
<td>2010</td>
<td>Harvey</td>
<td>Bibliotherapy use by welfare teams in secondary colleges.</td>
<td>Understood and attempted to utilize bibliotherapy.</td>
</tr>
<tr>
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<tr>
<td>2010</td>
<td>Karacan and Guneri</td>
<td>The effect of self-esteem enrichment bibliocounseling program on the self-esteem of sixth grade students</td>
<td>Bibliocounseling was found to be effective in self-esteem enrichment</td>
</tr>
<tr>
<td>2008</td>
<td>Liu, Chen, Li, Wang, Mok and Huang</td>
<td>Exploring the efficacy of cognitive bibliotherapy and a potential mechanism of change in the treatment of depressive symptoms among the Chinese: A randomized controlled trial</td>
<td>Bibliotherapy is a promising treatment for Chinese individual with depressive symptom.</td>
</tr>
<tr>
<td>2007</td>
<td>Shechtman</td>
<td>The contribution of bibliotherapy to the counseling of aggressive boys</td>
<td>Integrative counselling and bibliotherapy revealed that it increased empathy and reduced aggression.</td>
</tr>
<tr>
<td>2004</td>
<td>Floyd, Scogin, Mckendree-Smith, Floyd and Rokke</td>
<td>Cognitive therapy for depression: A comparison of individual psychotherapy and bibliotherapy for depression older adults</td>
<td>Psychotherapy and Bibliotherapy are effective in treatment of depression.</td>
</tr>
<tr>
<td>2000</td>
<td>Shechtman</td>
<td>An innovative intervention for treatment of child and adolescent aggression: An outcome study</td>
<td>Short-term multidimensional program using bible and classifying process promoted behavioural adjustment and reduced aggression.</td>
</tr>
<tr>
<td>1999</td>
<td>Shechtman</td>
<td>Bibliotherapy: An indirect approach to treatment of childhood aggression</td>
<td>Bibliotherapy reduced aggressive behaviour</td>
</tr>
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<tr>
<td>1993</td>
<td>Long, Rickert and Aschraft</td>
<td>Bibliotherapy as an adjunct to stimulant medication in treatment of attention-deficit hyperactivity disorder</td>
<td>Bibliotherapy approach is an adjunct to stimulant medication in the treatment of ADHD.</td>
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</tbody>
</table>

### Related Studies on Muscle Relaxation

<table>
<thead>
<tr>
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<th>Title of the Study</th>
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</thead>
<tbody>
<tr>
<td>2013</td>
<td>Flora, Monir, Bita and Shahnaz</td>
<td>Effect of relaxation training on working memory capacity and academic achievement in adolescents</td>
<td>Relaxation training increases work memory capacity and its components storage and processing and academic achievement.</td>
</tr>
<tr>
<td>2013</td>
<td>Regehr, Glancy and Pitts</td>
<td>Interventions to reduce stress in university students: A review and meta-analysis</td>
<td>Study revealed that cognitive, behavioural and mindfulness interventions were found to be effective in reducing stress of university students.</td>
</tr>
<tr>
<td>2013</td>
<td>Srilekha, Soumendra and Challopadhyay</td>
<td>Effect of Muscle Relaxation Training as a function of improvement in attentiveness in children</td>
<td>Long term practice of Abbreviated Progressive Muscle Relaxation was effective in reducing anxiety level and in developing better attentive capacity in children.</td>
</tr>
<tr>
<td>2011</td>
<td>Ricks, Naquin, Vest, Hurtt and Cole</td>
<td>Examining the results of podcast relaxation techniques in higher education</td>
<td>Podcast relaxation was found to be effective in reducing stress and promoting relaxation.</td>
</tr>
<tr>
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<tr>
<td>2010</td>
<td>Larson, El-Ramahi, Conn, Estes and Ghibellini</td>
<td>Reading test anxiety among third grade students through the implementation of relaxation techniques</td>
<td>Relaxation had a significant effect in reducing test anxiety.</td>
</tr>
<tr>
<td>2010</td>
<td>Balarama and Nagendra</td>
<td>Immediate effect of two yoga based relaxation techniques on attention in children</td>
<td>Relaxation technique namely cyclic meditation and spine rest improved student’s performance.</td>
</tr>
<tr>
<td>2008</td>
<td>Agee, Danoff-Burg and Grant</td>
<td>Comparing brief stress management courses in a community sample</td>
<td>Progressive muscle relaxation and mindfulness meditation reduced general psychological distress.</td>
</tr>
<tr>
<td>2008</td>
<td>Winterdyk, Ray, Lafave, Flessati, Haston, Dandeko and Murray</td>
<td>The evaluation of four mind/body intervention strategies to reduce perceived stress among college students.</td>
<td>Compare to other mind-body training methods nutritional education and relaxation response modalities produced greatest result in reducing students perceived stress.</td>
</tr>
<tr>
<td>1998</td>
<td>Bussone, Grazzi, D’Amico, Leone, and Adrasile</td>
<td>Biofeedback-Assisted relaxation training for young adolescents with tension type headache: A controlled study</td>
<td>Biofeedback assisted relaxation was found to be an effective and durable treatment for juvenile tension type headache.</td>
</tr>
<tr>
<td>1995</td>
<td>Doan, Plante and Michael</td>
<td>Influence of aerobic exercise activity and relaxation training on coping with test taking anxiety.</td>
<td>Aerobic exercise and relaxation training were associated with reduction of general test taking anxiety.</td>
</tr>
<tr>
<td>1981</td>
<td>Kwako</td>
<td>Relaxation as therapy for hyper active children.</td>
<td>Relaxation therapy has a direct effect upon the hyper activity syndrome.</td>
</tr>
</tbody>
</table>
Conclusion

The investigator made a detailed scanning of the current and relevant related literature based on the variables: academic stress, bibliotherapy and progressive muscle relaxation. Review revealed a clear picture of the current status; different strategies involved; the method utilized; the population involved and the variables selected for those studies.

Considering the studies on Academic Stress most of the researchers made use of survey method inorder to find out different areas of Academic Stress, how they predict their academic achievement, its effect on ambitious behaviour, psychological adaptation, positive coping, achievement motivation, school engagement, self-efficacy, optimism, teaching learning process, studies facilities, etc… The population studied involved college students, university students and generally high school and primary students. Most of the studies were carried out in foreign setting and only a few were conducted in India. The researchers used various stress management inventories to identify stress among students. Almost all studies revealed that there exists considerable academic stress among the studied population.

Bibliotherapy has considerable significance in various settings especially in classrooms. The investigators utilized experimental studies inorder to find out the effectiveness of the therapy and the result showed that it enhance resilience, decrease stress and anxiety social problem solving skills; building society and nation oriented values, promoting treatment for depressive students, reduce aggression but in memory training it did not
produce any improvements. The students involved in the studies were varied from kindergarten to university students. The reviews on bibliotherapy helped the investigator to identify various elements for preparing the lesson frames and administering Bibliotherapy in Kerala classroom context.

The investigator made a detailed review on studies related to muscle relaxation from 1981 to 2013. Mainly experimental studies were carried out and found that it is effective for working memory capacity; reducing stress promoting relaxation, test anxiety, psychological distress, headache reduction, reduce anxiety to normal levels, trait anxiety and has a direct effect upon the hyperactivity syndrome. The population ranged from secondary to university students.

The reviewed studies helped the investigator to select the method, design, tools and population for the study. The investigator reviewed relevant studies and she could not find many studies in Indian setting especially from Kerala. A study of this kind has not taken place anywhere. So this study is a venture from the part of the investigator.