DISCUSSION

Adolescence has been recognized as one of the most important phases of human development in terms of changes, learning and consolidation. It is a period of joy, excitement, resilience and optimism during which the delights of autonomy, intimacy and the future are fresh and possibilities are created for happiness, success and psychological growth for the remainder of life. (Mohan, 2003). Adolescents are not immune to stress and negative life events. The experience of adolescents’ stress and negative events constitutes an issue of central importance in adolescent health and development. The dramatic physical growth and physiological changes that characterize the adolescence, combined with individual, social and contextual transitions during this period, adolescence is an ideal period to study the different developmental systems. (Collins Maccoby, Steinberg, Hetherington and Bornstein, 2000)

According to Lau (2002), adolescents “can experience a spectrum of stress ranging from “ordinary to severe” in nature. Adolescents derive these stressors from normative experiences of development which include the developmental challenges like puberty, school transition and increased academic demands. The non normative sources of stress include the parental conflict / separation or moving on to a new place.

The physiological development, cognitive differences, pubertal changes, immature coping mechanisms, slower recovery from stressful events, and lack of experience in dealing with stress may intensify the stressful events experienced by adolescents. Stress in adolescents has been associated with a variety of high-risk behaviors, including smoking, suicide, depression, drug abuse, behavioral problems and indulgence in high risk sexual behaviors (Mohan, 1998a, 1998b). In addition, long-term exposure to stress is associated with a variety of chronic psychological and physical illnesses. Further, the daily hassles like peer group pressure and parent child conflict too serve as remarkable sources of stress. (Goodman, McEwen,

Despite abundant literature on adolescent stress, the experience and impact of stress and negative events during adolescence is often underestimated by adults. However, the stress during adolescence is highly valid as well as individual specific. It is agreed upon by various developmental theorists that it is not the experience of stress per se which is harmful; rather it is the availability or the lack of certain individual, familial and environmental factors that probably predict the developmental trajectories of adolescents. (Murberg and Bru, 2005)

In recent years there has been tremendous interest in understanding why some adolescents grow up to be healthy and well functioning adults despite having to overcome various forms of adversity in their lives. The phenomenon of successful development under high-risk conditions is known as “resilience,” and a great deal of research has been devoted to identifying the protective factors and processes that might account for adolescents’ successful outcomes. (Masten, Best, and Garmezy, 1990)

The scientific study of resilience emerged around 1970 when a group of pioneering researchers began to notice the phenomenon of positive adaptation among subgroups of children who were considered “at risk” for developing later psychopathology. Over the years of research on in adolescent resilience, the prime questions addressed were: “How do adolescents ‘make it’ when their development is threatened by negative life events or adversities? What protects them when their protective resources are disabled? How do adolescents succeed in spite of serious challenges to their development?

The study of resilience has advanced in four major waves of research. The first wave of work yielded good descriptions of resilience phenomena, along with basic concepts and methodologies, and focused on the individual. The second wave yielded a more dynamic accounting of resilience, adopting
a developmental systems approach to theory and research on positive adaptation in the context of adversity or risk, and focused on the transactions among individuals and the many systems in which their development is embedded. The third wave focused on creating resilience by intervention directed at changing developmental pathways. The fourth wave, now rising, is focused on understanding and integrating resilience across multiple levels of analysis, with growing attention to epigenetic and neurobiological processes, brain development, and the ways that systems interact to shape development. \cite{wright2013,munjula2014}

A review of the resilience research demonstrates that resilience has been explained in relation to all internal, external, transactional, moderating or mediating variables capable of affecting youth’s life adaptation. Resilience has also been equated with the direct or indirect variables correlated to or predictive of positive outcomes in high risk children. Looking at numerous individual, family and environmental protective factors affecting adolescent resilience, there was a need to create a sound model of resilience that best depicts the positive adaptational outcomes. This felt need, led to a series of studies on constructing the valid factor structure of resilience.

\textbf{Jew et al. (1999)} viewed adolescent resilience in light of the following factors: Future orientation, Active skill acquisition and independent risk taking. This conceptualization of adolescent resilience gave more importance to individual dispositional attitudes and to some extent ignored the role of family support, cohesion and external support systems.

\textbf{Howard and Johnson (2000)} gave a qualitative report focusing on the concept of ‘resilience’ with a new approach to look at how protective factors and processes operate in the lives of young people identified as being “at risk”. It found that young people who demonstrated resilience believed that they had control over their lives, had a more positive view and plans for the future, and a stronger sense of attachment to other people and institutions.
Oshio et al. (2003) conceptualized resilience as a composite of three factors: Novelty seeking, emotional regulation and positive future orientation. Working in this direction, Connor and Davidson (2003) did the major task of conceptualizing resilience as a multi-factorial structure. They conducted the exploratory factor analysis and found that resilience comprises of the following factors: “personal competence, high standards and tenacity”, “trust in one’s instincts”, “tolerance to negative affect and strengthening effect of stress”, “positive acceptance of change and secure relationships”, “control” and “spiritual influences.” This study provided the preliminary evidence for the multi factorial structure of resilience, however owing to certain methodological flaws, further reanalysis was suggested.

The research to understand the construct of resilience is not only limited to quantitative studies; rather there are reports of qualitative studies in understanding how protective mechanisms operate in lives of adolescents living in high risk conditions. A qualitative study by Leak (2003) focused on the male students who were placed at risk of failure yet managed to become successful. The researcher used the qualitative interviews along with the observations and field notes as methods to collect information. It was found that the subjects involved in the study possessed certain unique characteristics which contributed to their resilience. These characteristics included social competence, problem-solving skills, autonomy and a sense of purpose. The additional factors that contributed to their resilience were positive belief in self, adequate parental pushing, availability of support systems, participation in extracurricular activities, challenging classes and realistic aspirations. In general these youth were self assured, autonomous and goal oriented. Resilient youth were also self regulated, possessed good coping skills, had strong family values and were actively involved in religious activities. In addition, they also exhibited social competence, self efficacy, problem solving skills and sense of direction.

Another study by Hines, Wyatt and Merdinger (2005) aimed to understand the processes by which adolescents especially those raised in foster care system develop resilience despite adversity. In this study the in-
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Depth interviews were conducted and transcribed. The results indicated that individual attributes including assertiveness, persistence, ability to accept help, a flexible and adaptable self image, were all pivotal factors contributing to resilience. All these factors when taken together composed the ‘internal locus of control’ crucial to resilient behavior. The life stories of these youth illustrated how focus within the individual, family and community level is integral in understanding developmental pathways.

Working on these lines Hjemdal, Aune, Reinfjell, and Stiles (2006) made an effort to grasp the central protective resources behind healthy development and resilience taking into account the individual as well as family and environmental factors. In this study, the post hoc structural equational modeling revealed five major factors of adolescent resilience. These five factors included personal competence, social competence, family cohesion, social resources and structured style.

Solberg, Carlstrom, Howard, Jones (2007) added on to the literature on adolescent resilience by describing the relationship of protective factors with outcomes. They used the hierarchical cluster analysis to classify the adolescents in terms of the characteristics they possessed more or lacked. The characteristics included were connections with teachers and peers, family support, academic self-efficacy, intrinsic motivation and exposure to direct and indirect violence. Such classification resulted in emergence of six groups, out of which five emerged as being made up of “at risk” clusters of characteristics labeled as ‘most vulnerable’, ‘vulnerable’, ‘disengaged’, ‘resilient’ while one group was found to be “not-at-risk.” Results showed that the “resilient” group had significantly higher exposure to both indirect and direct violence than any other group. However, they also reported higher levels of self-efficacy and intrinsic motivation than four other groups, a greater connection to peers and teacher than three other groups and higher perceived family support than two other groups. This group was described as resilient due to the high number of resilience characteristics they possessed in the face of a greater exposure to violence than any other group. Results for the “not-at-risk” group found that these students were significantly more
connected to their peers, had higher self-efficacy and higher intrinsic motivation than four other groups. They also reported significantly less violence exposure than four other groups and had strong connections to their teachers and peers indicating that they possessed none of the risk factors that were expected to lead to school difficulties.

To have a more comprehensive understanding of resilience as a “process”, another qualitative study was conducted by Drapeau, Jacques, Lepine, Begin and Bernard (2007) among youth in foster care. This interpretive research focused on ‘how’ rather than ‘why’ of resilience development. The author studied the turning points in order to elucidate the processes of resilience construction. The three turning points identified in the study were action, self reflection and relationships. Action referred to sense of accomplishment, a feeling that becomes the turning point for shift. Reflection refers to the shift associated with realization that they were in an impasse. Relationships referred to developing or creating a significant positive and trusting relationship enabling the adolescent to continue developing. All these turning points were further related to processes that were brought together in four themes: increase in perceived self efficacy, distancing oneself from risks, new opportunities in environment and multiplication of benefits in different areas.

Campbell-Sills and Stein (2007) re-studied the factor structure of resilience. They provided a four factor solution that was the best fit according to the criteria outlined. The four factors were labeled as: “hardiness”, “social support,” “faith” and “persistence.” The researchers also conducted a second exploratory factor analysis which also provided a four factor solution; however several items displayed inconsistent loadings across the two exploratory factor analysis. “Faith” factor was consistently defined by few items, and “Persistence” factor was consistently defined by four items but was difficult to interpret because it contained two disparate themes (social support/purpose). Therefore, the researchers created an abridged version of resilience measure and further confirmatory factor analysis was done which yielded a two factor solution: “Hardiness” and “Persistence”. The factor hardiness contained items
referring to ability to cope with change, unexpected events, stress, illness/hardship, pressure, negative outcomes, and unpleasant feelings; in addition to items referring to general personal toughness and ability to use humor when faced with problems. The factor ‘Persistence’ contained items referring to giving one’s best effort no matter what, belief in one’s ability to achieve goals despite obstacles, not giving up, and working to attain goals despite roadblocks.

Tuasie, Puskar, Sereika (2007) studied the psychosocial resilience in relation to optimism, bad life events, gender, age and perceived support by family. In this study, the proposed influence of intra individual differences and social embeddedness were indicated in the findings about optimism, perceived support, and life events. It was found that optimism was the strongest direct positive influence, followed by perceived social support of family. A bad life event was the strongest direct negative influence, followed by age. When optimism interacted with bad life events, the negative influence upon psychosocial resilience was decreased. When adolescents experienced bad life events, perceived social support of friends was the most powerful moderator. They concluded that younger, male adolescents who experienced fewer bad life events, with higher levels of optimism and perceived family support, were more likely to have higher levels of resilience. Older male adolescents with higher levels of optimism and higher levels of perceived support of family and friends also showed higher levels of Resilience even if they experienced multiple bad life events.

Hystad et al. (2010) also made an effort to understand the factor structure of dispositional Resilience (Hardiness). Using the exploratory and confirmatory factor analytical strategies on a large sample, they found support for the hierarchical structure of resilience comprising of general hardiness dimension and three sub dimensions. The first sub-dimension was that of control dimension of resilience, second was the commitment dimension and third being the challenge dimension.
Most of the literature on resilience supports the view that human psychological development is highly buffered and self-righting and that resilient behavior can occur at any stage. There are a large number of protective factors which have been identified as potential shapers of adolescent resilience. The review on such factors has persistently found cognitive factors which include cognitive reframing, problem-solving abilities, optimism, a sense of meaning or a cohesive narrative about the stressor, high intelligence level, reading skills, and resourcefulness in seeking social support as important individual protective factors. There are also reports of environmental protective factors having significant impact on adolescent resilience. These factors include having fewer negative life events, history of competence or successes, positive attachments between parents and child, participation in school activities, and expansion of support system outside the family. (Scheir and Carver, 1987; Werner and Smith, 1992; Rutter, 1993; Chang, 2001; Geanellos, 2005).

Tol, Song and Jordons (2013) conducted a systematic review on adolescent resilience and mental health. They identified 53 studies (15 qualitative and mixed methods, 38 quantitative studies) that focused on resilience in children and adolescents. Studies showed significant variation across socio-cultural contexts both in (a) how desired mental health outcomes are defined, and (b) the processes that determine these outcomes. Research converged on the importance of supports across the socio-ecological context for resilience in children and adolescents of which parental support and parental monitoring were most consistently associated with desired mental health outcomes. The research supported the notion of resilience as determined by a complex interaction between development, gender, and context-dependent variables, rather than a mathematical balance between risk and protective factors with known effects on mental health. This complexity requires careful attention to assessment of both salutogenic and pathogenic effects of candidate predictors before attempting their promotion in new socio-cultural settings.
Ager (2013) highlighted the exponential growth in utilization of the concept of ‘resilience’, a trend reflected both in academic literature and policy discourse. There has been an eight fold increase in use of the term resilience within scientific and scholar literature over the last twenty years. Widespread use of the term reflects, in part, its potential synergy with a number of disparate agendas. Based upon the review, however, authors suggested a number of constraints of current evidence as a basis for policy formulation regarding child well-being and resilience. He reported that in particular, there is a lack of robust – quantitative and/or qualitative empirical studies; the focus of evaluations is typically more on discrete interventions than wider policy initiatives; and the potential complex adaptive systems focus of resiliency is seldom explored.

Cicchetti (2013) also provided the future initiatives on resilience research by pointing out the need to investigate the pathways to resilient functioning and simultaneously examine biological and psychological systems. He said that there is a need to determine the multiple levels at which change is engendered through the design and implementation of resiliency-promoting interventions that will provide insight into the mechanisms of change, the extent to which neural plasticity may be promoted, and the interrelations between biological and psychological processes in the development of resilient functioning.

One of the major felt needs for future expanding the literature on resilience is the need to examine the effects and dynamic interactions of multiple risk and protective factors simultaneously rather than in isolation. With such background, the present study was undertaken to understand adolescent resilience in relation various psychosocial factors.

The main aim of the present study was to study adolescent Resilience in relation to Emotional Intelligence, Negative Life Events, Coping Styles, Parental Bonding Dimensions, Eysenckian Personality Dimensions and Interpersonal Reactivity. Another aim of the study was to measure the gender differences in Emotional Intelligence, Negative Life Events, Coping Styles,
Parental Bonding Dimensions, Eysenckian Personality Dimensions and Interpersonal Reactivity.

The sample comprised of total of 300 adolescents, (150 males and 150 females), selected randomly from schools in Chandigarh. The study had adopted a relational design in which the construct of adolescent Resilience was assessed in relation to Parental Bonding Dimensions, Negative Life Events, Coping Styles, Eysenckian Personality Dimensions, Emotional Intelligence and Interpersonal Reactivity.

To measure Resilience, The Resilience Scale (Wagnild and Young, 1983) was used which measures total Resilience and two sub scales of resilience viz. Personal Competence and Acceptance of Self and Life.

Trait Emotional intelligence was assessed using Trait Emotional Intelligence Questionnaire Adolescent Form (Trait El Que AFF) (Petrides, 2009) which gives Global Trait Emotional Intelligence score along with scores on 15 facets and 4 factors of emotional intelligence.

Negative Life Events Inventory developed by Wills et al. (2001) was used to measure the Individual and Family Negative Events.

Coping styles were assessed using The Proactive Coping Inventory (Greenglass, 1999) which assess seven dimensions of proactive approach to coping viz. Proactive Coping Scale, Reflective Coping Scale, Strategic Planning, Preventive Coping, Instrumental Support Seeking, Emotional Support Seeking and Avoidance Coping.

Parental Bonding was measured by Parental Bonding Instrument by Parker, Tupling, and Brown (1979). It has two dimensions viz Perceived Parental Care and Perceived Parental Overprotection.

To measure dimensions of Personality, Eysenck’s Personality Questionnaire – Revised (Eysenck, Eysenck and Barrett, 1985) was used.
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to get scores on **Extraversion/ Introversion, Psychoticism, Neuroticism and Social Desirability**.

**Interpersonal Reactivity Index (Davis, 1980)** was used as a measure for interpersonal reactivity. This instrument measures empathy through four subscales viz. **Perspective Taking, Fantasy Scale, Empathic Concern and Personal Distress**.

After obtaining the due permission from the Principals’ of the concerned schools, the subjects were explained about the purpose of the study. The written informed consent was obtained from the willing participants. The data was collected using the self administered questionnaires.

The raw scores were obtained on a total 44 of variables viz. Resilience (total) and its sub-sales (Personal Competence and Acceptance of self and life), Parental Bonding dimensions (Perceived Maternal Care, Perceived Paternal Care, Perceived Maternal Overprotection and Perceived paternal overprotection), Negative Individual Events, Negative Family Events, Coping Styles (Proactive Coping, Reflective Coping, Strategic Planning, Preventive Coping, Instrumental Support Seeking, Emotional Support Seeking and Avoidance Coping), Eysenckian Personality Dimensions (Extraversion/Introversion, Psychoticism, Neuroticism), Global Trait Emotional Intelligence and its facets viz. Self Esteem, Emotion Expression, Self Motivation, Emotion Regulation, Happiness, Empathy, Social Awareness, Impulsiveness (low), Emotion Perception, Stress Management, Emotion Management, Optimism, Relationships, Adaptability and Assertiveness) and its four factors (Well Being, Self Control, Emotionality and Sociability), and Interpersonal Reactivity measured on four subscales viz. Fantasy Scale, Perspective Taking, Empathic Concern, and Personal Distress.

The raw scores were analyzed using appropriate statistical analyses viz. Descriptive statistics, t-test, Intercorrelations and regression analysis.
1. Resilience, Emotional Intelligence and Interpersonal Reactivity

Based on the review of literature the following hypotheses were proposed:

1.1 Resilience (total) and its sub scales (Personal competence and Acceptance of self and Life) were expected to be positively related to Global Trait Emotional Intelligence.

1.2 Resilience (total) and its sub scales (Personal competence and Acceptance of self and Life) were expected to be positively related to all facets and factors of Emotional Intelligence viz. Self Esteem, Emotion Expression, Self Motivation, Emotion Regulation, Happiness, Empathy, Social Awareness, Impulsiveness (low), Emotion Perception, Stress Management, Emotion Management, Optimism, Relationships, Adaptability, Assertiveness, Well Being, Self Control, Emotionality and Sociability.

1.3 Resilience (total) and its sub scales (Personal Competence and Acceptance of self and Life) were expected to be positively related to the two sub dimensions of Interpersonal Reactivity viz. Perspective Taking and Empathic Concern.

1.4 Resilience (total) and its sub scales (Personal Competence and Acceptance of self and Life) were expected to be negatively related to the two sub dimensions of Interpersonal Reactivity i.e. Fantasy Scale and Personal Distress.

A glance at intercorrelational analysis depicted in tables 3.1, 3.2, 3.3 revealed significant positive correlations emerged between Resilience (total) and Global Trait Emotional Intelligence for total adolescent sample (r=0.45), male adolescent sample (r=0.48) and female adolescent sample (r=0.42). The Personal Competence also had significantly positive correlation with Global Trait Emotional Intelligence for total adolescent sample (r=0.46), male adolescent sample (r=0.49) and female adolescent sample (r=0.44) as
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depicted in table 3.1, 3.2, 3.3 respectively. The Acceptance of Self and Life had significant positive correlation with Global Trait Emotional Intelligence for total adolescent sample \( r=0.28 \), male adolescent sample \( r=0.29 \) and female adolescent sample \( r=0.27 \).

Hence, the first hypothesis (1.1) was upheld in light of obtained results.

The perusal of table 3.1 shows that there were significant positive correlations among Resilience (total) and all the 15 facets of Emotional Intelligence viz. Self Esteem \( r=0.35 \), Emotion Expression \( r=0.15 \), Self Motivation \( r=0.32 \), Emotion Regulation \( r=0.26 \), Happiness \( r=0.29 \), Empathy \( r=0.32 \), Social Awareness \( r=0.45 \), Impulsiveness (low) \( r=0.12 \), Emotion Perception \( 0.32 \), Stress Management \( 0.25 \), Emotion Management \( r=0.25 \), Optimism \( r=0.24 \), Relationships \( r=0.12 \), Adaptability \( r=0.23 \) and Assertiveness \( r=0.34 \) in total adolescent sample.

Table 3.2 depicts the correlation matrix of male sample which shows significant positive correlations among Resilience (total) and 13 out of 15 facets of Emotional Intelligence viz. Self Esteem \( r=0.39 \), Emotion Expression \( r=0.16 \), Self Motivation \( r=0.35 \), Emotion Regulation \( 0.18 \), Happiness \( r=0.29 \), Empathy \( r=0.38 \), Social Awareness \( r=0.44 \), Emotion Perception \( 0.27 \), Stress Management \( 0.23 \), Emotion Management \( r=0.43 \), Optimism \( r=0.26 \), Adaptability \( r=0.25 \) and Assertiveness \( r=0.32 \).

Table 3.3 depicts the correlation matrix of female sample which shows significant positive correlations among Resilience (total) and 12 out of 15 facets of Emotional Intelligence viz. Self Esteem \( r=0.31 \), Self Motivation \( r=0.30 \), Emotion Regulation \( r=0.32 \), Happiness \( r=0.30 \), Empathy \( r=0.29 \), Social Awareness \( r=0.45 \), Emotion Perception \( r=0.37 \), Stress Management \( r=0.26 \), Emotion Management \( r=0.31 \), Optimism \( r=0.23 \), Adaptability \( r=0.21 \) and Assertiveness \( r=0.36 \).

The perusal of table 3.1 also depicts that in total adolescent sample, there were significant positive correlations among Personal Competence and 14 facets of Emotional Intelligence viz. Self Esteem \( r=0.36 \), Emotion
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Expression \( (r=0.14) \), Self Motivation \( (r=0.36) \), Emotion Regulation \( (r=0.29) \), Happiness \( (r=0.26) \), Empathy \( (r=0.34) \), Social Awareness \( (r=0.44) \), Impulsiveness (low) \( (r=0.14) \), Emotional Perception \( (r=0.34) \), Stress Management \( (r=0.28) \), Emotional Management \( (r=0.37) \), Optimism \( (r=0.26) \), Adaptability \( (r=0.24) \) and Assertiveness \( (r=0.32) \).

The perusal of table 3.2 depicts that in male adolescent sample there were significant positive correlations among Personal Competence and 13 facets of Emotional Intelligence viz. Self Esteem \( (r=0.37) \), Self Motivation \( (r=0.41) \), Emotion Regulation \( (r=0.22) \), Happiness \( (r=0.27) \), Empathy \( (r=0.39) \), Social Awareness \( (r=0.44) \), Emotion Perception \( (r=0.27) \), Stress Management \( (r=0.26) \), Emotion Management \( (r=0.41) \), Optimism \( (r=0.25) \), Relationship \( (r=0.16) \), Adaptability \( (r=0.26) \) and Assertiveness \( (r=0.30) \).

The perusal of table 3.3 depicts that in female adolescents, there were significant positive correlations among personal competence and 12 facets of emotional intelligence viz. Self Esteem \( (r=0.34) \), Self Motivation \( (r=0.32) \), Emotion Regulation \( (r=0.35) \), Happiness \( (r=0.26) \), Empathy \( (r=0.30) \), Social Awareness \( (r=0.44) \), Emotion Perception \( (r=0.40) \), Stress Management \( (r=0.29) \), Emotion Management \( (r=0.33) \), Optimism \( (r=0.26) \), Adaptability \( (r=0.22) \) and Assertiveness \( (r=0.35) \).

The correlation matrix for total adolescent sample as shown in table 3.1 depicts that Acceptance of Self and Life had significant positive correlations with 12 facets of Emotional Intelligence viz. Self Esteem \( (r=0.22) \), Emotion Expression \( (r=0.12) \), Self Motivation \( (r=0.14) \), Happiness \( (r=0.25) \), Empathy \( (r=0.19) \), Social Awareness \( (r=0.32) \), Emotion Perception \( (r=0.18) \), Stress Management \( (r=0.11) \), Emotion Management \( (r=0.25) \), Optimism \( (r=0.14) \), Adaptability \( (r=0.14) \) and Assertiveness \( (r=0.26) \).

The correlation matrix for male adolescent sample as shown in table 3.2 reveals that Acceptance of Self and Life had significant positive correlations with 9 facets of Emotional Intelligence viz. Self Esteem \( (r=0.27) \), Happiness \( (r=0.22) \), Empathy \( (r=0.21) \), Social Awareness \( (r=0.28) \), Emotion
Perception (r=0.17), Emotion Management (r=0.32), Optimism (r=0.18), Relationship (r=0.17) and Assertiveness (r=0.26).

The correlation matrix for female adolescent sample as shown in table 3.3 depicts that Acceptance of Self and Life had significant positive correlations with 8 facets of Emotional Intelligence viz. Self Esteem (r=0.16), Self Motivation (r=0.17), Happiness (r=0.28), Empathy (r=0.19), Social Awareness (r=0.34), Emotion Perception (r=0.19), Emotion Management (r=0.17) and Assertiveness (r=0.27)

Hence, the second hypothesis (1.2) was upheld in majority of cases.

The perusal of table 3.1 shows that for total adolescent sample, Resilience (total) correlated positively with all the four factors of Emotional Intelligence viz. Well Being (r=0.35), Self Control (r=0.26), Emotionality (r=0.32) and Sociability (r=0.46).

As per table 3.2, in male adolescent sample there were significant positive correlations among Resilience (total) and all the four factors of Emotional Intelligence viz. Well Being (r=0.38), Self Control (r=0.23), Emotionality (r=0.34) and Sociability (r=0.49).

As per table 3.3 in female adolescent sample there were significant positive correlations among Resilience (total) and all the four factors of Emotional Intelligence viz. Well Being (r=0.33), Self Control (r=0.29), Emotionality (r=0.31) and Sociability (r=0.44).

The perusal of table 3.1 depicts that in total adolescent sample Personal Competence had significant positive correlations with the four factors of Emotional Intelligence viz. Well Being (r=0.35), Self Control (r=0.30), Emotionality (r=0.33) and Sociability (r=0.45).

As per table 3.2, in male adolescent sample there were significant positive correlations among Personal Competence and all the four factors of
Emotional Intelligence viz. Well Being ($r=0.37$), Self Control ($r=0.27$), Emotionality ($r=0.35$) and Sociability ($r=0.47$).

As per Table 3.3, in female adolescent sample there were significant positive correlations between Personal Competence and all the four factors of Emotional Intelligence viz. Well Being ($r=0.33$), Self Control ($r=0.33$), Emotionality ($r=0.31$) and Sociability ($r=0.44$).

The correlational matrix for total adolescent sample as shown in Table 3.1 depicts that Acceptance of Self and Life showed positive correlation with 3 factors of Emotional Intelligence viz. Well Being ($r=0.24$), Emotionality ($r=0.21$) and Sociability ($r=0.32$).

Table 3.2 depicts that in male adolescent sample there were significant positive correlations of Acceptance of Self and Life with 3 factors of Emotional Intelligence viz. Well Being ($r=0.28$), Emotionality ($r=0.20$) and Sociability ($r=0.35$).

Table 3.3 depicts that in female adolescent sample there were significant positive correlations of Acceptance of Self and Life with 3 factors of Emotional Intelligence viz. Well Being ($r=0.21$), Emotionality ($r=0.23$) and Sociability ($r=0.31$).

Hence, the hypothesis (1.3) stating the relationship of Resilience and its sub scales with factors of Emotional Intelligence has been upheld.

The perusal of Table 3.1 shows that in total adolescent sample, there were significant positive correlations among Resilience (total) and Fantasy Scale ($r=0.16$), Empathic Concern ($r=0.19$) and Perspective Taking ($r=0.18$). There was negative correlation of Resilience (total) with Personal Distress ($r=-0.18$).

As per Table 3.2, in the male adolescent sample, the Resilience (total) correlated positively with Fantasy Scale ($r=0.18$), Empathic Concern ($r=0.22$)
and Perspective Taking ($r=0.22$). No significant correlations emerged between Resilience (total) and Personal Distress.

As per **table 3.3**, in the female adolescent sample, the Resilience (total) correlated positively with Empathic Concern ($r=0.19$) and Perspective Taking ($r=0.18$) while, there was negative correlation with Personal Distress ($r=-0.18$). No significant correlations emerged between Resilience (total) and Fantasy Scale.

The perusal of **table 3.1** shows that for total adolescent sample, there were significant positive correlations among Personal Competence and Fantasy Scale ($r=0.14$), Empathic Concern ($r=0.19$) and Perspective Taking ($r=0.18$) while, there was a negative correlation with Personal Distress ($r=-0.15$).

As per **table 3.2**, in male adolescent sample, the Personal Competence correlated positively Empathic Concern ($r=0.21$) and Perspective Taking ($r=0.21$). No significant correlations emerged among Personal Competence and Fantasy Scale as well as Personal Distress.

As per **table 3.3**, in female adolescent sample, the Personal Competence correlated positively with Empathic Concern ($r=0.19$) and Perspective Taking ($r=0.17$). There was negative correlation between Personal Competence and Personal Distress ($r=-0.19$). No significant correlation emerged between Personal Competence and Fantasy Scale.

The perusal of **table 3.1** shows that for total adolescent sample, there were significant positive correlations among Acceptance of Self and Life and fantasy scale ($r=0.15$), Empathic Concern ($r=0.15$) and Perspective Taking ($r=0.14$). No significant correlation emerged between Acceptance of Self and Life and Personal Distress.

As per **table 3.2** the Acceptance of Self and Life correlated positively with Fantasy Scale ($r=0.15$) in male adolescent sample.
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The correlational analysis for female adolescent sample depicted in table 3.3 revealed that no significant correlations emerged among Acceptance of Self and Life and subscales of Interpersonal Reactivity. Thus the hypothesis (1.4) regarding relationship of Resilience (total) and its subscales with Interpersonal Reactivity was partially upheld.

Regression analysis with Resilience (total) as the dependent variable revealed that the Sociability ($R^2 = 0.33$), Emotion regulation ($R^2 = 0.35$), Impulsiveness (low) ($R^2 = 0.37$), and Happiness ($R^2 = 0.38$), were the significant predictors for total adolescent sample. (Table 4.1) The regression equation for male adolescent sample as shown in table 4.2 depicted that Sociability ($R^2 = 0.24$), and Empathy ($R^2 = 0.38$), emerged as significant predictors. The regression equation for female adolescent sample as shown in table 4.3 depicted that Sociability ($R^2 = 0.26$), and Emotion Regulation ($R^2 = 0.39$), emerged as significant predictors.

The perusal of table 4.4, showing the regression analysis with Personal Competence as the dependent variable revealed that the Sociability ($R^2 = 0.33$) and Emotion Regulation ($R^2 = 0.36$) were the significant predictors for total adolescent sample. The regression equation for male adolescent sample (table 4.6) depicted that Sociability ($R^2 = 0.22$) and Empathy ($R^2 = 0.16$) emerged as significant predictors. The regression equation for female adolescent sample as shown in table 4.6 depicted that Sociability ($R^2 = 0.35$), Emotion Regulation ($R^2 = 0.41$), Emotion expression ($R^2 = 0.42$) and Emotion Perception ($R^2 = 0.44$) emerged as significant predictors.

Table 4.7 depicting the Stepwise Multiple Regression Equation for the Criterion Variable Acceptance of Self and Life for total Adolescent Sample showed that the Sociability ($R^2 = 0.11$) and Happiness ($R^2 = 0.22$) were the significant predictors for total adolescent sample. The regression equation for male adolescent sample as shown in table 4.8 depicted that Sociability ($R^2 = 0.12$) and Well Being ($R^2 = 0.21$) emerged as significant predictors. The regression equation for female adolescent sample as shown in table 4.9
depicted that Social Awareness ($R^2=0.21$) emerged as one of the significant predictors for Acceptance of Self and Life.

Based on the findings of regression analysis, it can be said that Emotional Intelligence emerged as an important predictor for Resilience. In the coming section, the studies pertaining to the synergistic view of emotional intelligence and resilience have been discussed which may give support to results obtained in present case.

Emotional Intelligence refers to the ability to identify, express, understand emotions and to incorporate emotion into thought. Emotional Intelligence also involves the ability to normalize both negative as well as positive emotions. It is the ability to make one’s emotions work by using them in ways that it generates the desired results. The emotional intelligence has often also been discussed in the context of resilient behavior. (Edward and Warlow, 2005). Emotional Intelligence may be directly connected to resilience such that emotionally intelligent behavior in stressful circumstances is adaptive. At the same time, the capacity for empathy is a vital ingredient in developing social self-confidence and the potential to seek out and enjoy social interaction.

Resilience is often associated with a variety of behavioral and psychological outcomes. A convergence across several research methodologies indicated that resilient individuals have optimistic, zestful, and energetic approaches to life, are curious and open to new experiences, and are characterized by high positive emotionality (Block and Kremen, 1996; Klohnen, 1996). Thus, positive emotionality emerges as an important element of psychological resilience as well as an important facet of emotional intelligence.

Salovey, Bedell, Detweiler and Mayer (1999) theorize that persons with higher Emotional Intelligence (EI) cope better with emotional demands of stressful encounters because they are able to accurately perceive and appraise their emotions, know how and when to express their feelings and
can effectively regulate their mood states. EI is thus postulated to buffer the effects of aversive events through emotional awareness, expression and management.

The resilience research has acknowledged the role of positive emotions in stressful situations. A review of recent evidence indicates that positive emotions help buffer against stress. For instance, positive coping strategies, such as positive reappraisal, problem-focused coping, and infusing ordinary events with positive meaning are related to the occurrence and maintenance of positive affect. (Folkman and Moskowitz, 2000)

Tugade and Fredrickson (2004) examined the relationship between positive emotions and psychological resilience. The researcher used the physio-psychological methods to explore the emotional regulation processes associated with psychological resilience. The association between the emotional regulation and resilience was assessed in terms of duration of stress reactivity in response to stress. This was hypothesized that highly resilient individuals would evidence faster physiological recovery from a stressor, relative to low resilient. The results of correlational analysis between trait resilience and positive and negative mood showed that the trait resilience was positively associated with positive mood but was not associated with negative mood. The higher trait resilience was also associated with more happiness. The trait resilience was positively related to the positive emotionality composite index. Further, cognitive appraisals of threat were also found to mediate the effect of trait resilience on duration of cardiovascular reactivity. The study demonstrated that resilience is not just a psychological phenomenon. Rather, the psychological mindset involved with resilience is reflected in the body as well, which has strong implications for research in health psychology.

The researchers further extended this study to explore the differences in low resilient individuals and high-resilient individuals in experience of positive emotionality and finding a positive meaning in negative circumstances. The results showed that higher trait resilience was associated
with greater positive emotionality and positive meaning finding. Individual differences in psychological resilience predicted the ability to find positive meaning in negative circumstances. Both high- and low-resilient individuals reported equal levels of frustration in response to the most important problem they described. Differences emerged, however, in participants’ reports of positive emotions. Even before they described their most important current problem, high-resilient participants reported higher levels of positive ambient mood. Then, when they were asked about how they felt in response to the problem they described, high-resilient individuals reported feeling more eager, excited, happy, and interested amidst their high level of frustration, compared with low-resilient individuals.

**Westphal et al. (2010)** reported positive association between resilience and emotional intelligence. The author opined that more resilient people were better able to strategically enhance both positive and negative emotional experiences than their less resilient counterparts.

**Armstrong, Galligan and Critchley (2011)** investigated the relative importance of six dimensions of Emotional Intelligence (EI) in prediction of psychological resilience to multiple negative life events. The strength of relations between negative life events and distress varied markedly across three latent classes of participants, reflecting vulnerable, average and resilient profiles. The life event-distress relationship was weaker for participants with higher levels of emotional self-awareness, emotional expression, emotional self-control and particularly, emotional self-management. Discriminant function analysis indicated that class membership varied as a function of four EI dimensions, with higher scores predicting membership to the resilient class. Emotional self awareness, emotional expression, emotional self control and emotional self management appeared central to psychological resilience in the aftermath of negative life events. One of the notable findings of the study was that the two interpersonal EI dimensions viz. emotional awareness of others and emotional management of others, did not discriminate between more and less resilient persons in the presence of the four intrapersonal
dimensions which suggested that when coping with multiple life events, the benefits of intrapersonal EI outweigh the benefits of interpersonal EI.

**Karreman and Vingerhoets (2012)** highlighted the relationship between resilience and emotional regulation, which is an important dimension of emotional intelligence and resilience. The emotional regulation was assessed by using Emotion Regulation Questionnaire: ERQ (Gross and John, 2003) which measures two sub scales of emotional regulation viz. reappraisal and suppression. The results of correlational analysis revealed that there was significant positive correlation between resilience and reappraisal.

**Liu, Wang and Lu (2013)** conceptualized the construct of emotional intelligence and resilience. They conducted a study based upon the view that emotional intelligence is an antecedent to resilience. The researchers proposed a model concerning the mediator role of resilience and affect balance in relation to trait emotional intelligence and life satisfaction. The meditational analysis revealed that Emotional intelligence had a significantly positive effect on resilience. Moreover, it was inferred that resilience plays a meditational role in relationship between emotional intelligence and affect balance.

**Schneider, Lyons and Khazon (2013)** examined the relationship between emotional intelligence and resilient stress response. The emotional intelligence was measured in four subscales viz. emotional perception, emotional understanding, facilitating cognition and emotional management. The results revealed that all the four emotional intelligence abilities facilitated in resilient stress responses including challenge appraisals, more positive and less negative affect and challenge physiology. Emotional perception facilitated significantly lower negative affect for men across the course of stressor exposures. Emotional understanding facilitated resilience. Higher emotional understanding in men was associated with more positive affect across the stressors than lower emotional understanding.
Soleimani, Rahimi and Sepasi (2013) investigated the relationship between emotional intelligence and psychological self-resiliency. Correlational analysis revealed that psychological resilience showed significant positive correlations with emotional self-regulation and emotional regulation of others and also with total emotional intelligence. The regression analysis further revealed that emotional intelligence explained 19% variance in psychological resilience.

Likewise the construct of interpersonal reactivity, which is a measure for various dimensions of empathy, is also liked largely with resilience. There are studies providing evidence to this very proposition which are being discussed in upcoming section.

The construct of empathy has elicited enormous interest in multiple subfields of psychology like clinical, educational, developmental and organizational psychology due to important role that it plays in interpersonal skills like, pro social behavior. These skills are important in resilient individuals. (Eisenberg, Morris, McDaniel and Spinard, 2009).

Traditionally, empathy has been studied in two different approaches: cognitive and affective-based approaches. In cognitive approach, empathy refers to cognitive role taking or taking another individual’s perspective while in affective based approach empathy is defined as a shared affection or vicarious feeling. (Davis, 1996; Gerdes, Segal and Lietz, 2010). The interpersonal reactivity index integrates both these approaches and measures empathy as a multidimensional construct.

Fernandez, Dufey and Cramp (2011) assessed the relationship between interpersonal reactivity and psychological constructs associated with resilient as well as non resilient outcomes. The correlational analysis revealed that fantasy scale had no significant relationship with to either resilient or non resilient outcomes. Empathic concern and perspective taking correlated positively with self esteem and positive affect. Empathic Concern and perspective taking correlated negatively with all the measures that tapped
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anxiety related negative feelings and aggressive constructs. Personal distress correlated negatively to both self esteem as well as positive affect.

2. Resilience, Negative Life Events and Coping Styles

Based on the review of literature the following hypotheses were proposed:

2.1 Resilience (total) and its sub scales (Personal Competence and Acceptance of self and Life) were expected to be negatively related to Negative Individual Events and Negative Family Events.

2.2 Resilience (total) and its sub scales (Personal Competence and Acceptance of Self and Life) were expected to be positively related to the six sub scales of Coping Inventory viz. Proactive Coping, Reflective Coping, Strategic Planning, Emotion Support Seeking, Instrumental Support Seeking and Preventive Coping.

2.3 Resilience (total) and its sub scales (Personal Competence and Acceptance of Self and Life) were expected to be negatively related to the one of the sub scales of Coping Inventory viz. Avoidance Coping.

A glance at correlational analysis depicted in tables 3.1, 3.2 & 3.3 revealed that no significant correlation emerged between Resilience (total) and Negative Individual Events for total adolescent sample, male adolescent sample and female adolescent sample. The correlational analysis also revealed that there was no significant correlation between Resilience (total) and Negative Family Events for total adolescent sample, male adolescent sample and female adolescent sample.

As per tables 3.1, 3.2, 3.3 there were no significant correlations between Personal Competence and Negative Individual Events for total adolescent sample, male sample and female sample. The Personal Competence had non-significant correlation with Negative Family Events. Neither Negative Individual Events nor individual Family Event had any
significant correlation with Acceptance of Self and Life in total adolescent sample, male adolescent sample and female adolescent sample.

The correlational analysis as depicted in table 3.1, 3.2, 3.3 showed that Resilience (total) was positively correlated to Proactive Coping in total adolescent sample \((r = 0.45)\), male adolescent sample \((r = 0.43)\) and female adolescent sample \((r = 0.46)\). There was statistically significant correlation between Resilience (total) and Reflective Coping for total adolescent sample \((r = 0.47)\), male adolescent sample \((r = 0.42)\) and female adolescent sample \((r = 0.51)\). Resilience (total) correlated positively with Strategic Planning for total adolescent sample \((r = 0.23)\), male adolescent sample \((r = 0.22)\) and female adolescent sample \((r = 0.25)\). There were positive correlations between Resilience (total) and Preventive Coping in case of total adolescent sample \((r = 0.41)\), male adolescent sample \((r = 0.40)\) and female adolescent sample \((r = 0.43)\). There was statistically significant positive correlation between Resilience (total) and Emotional Support Seeking for total adolescent sample \((r = 0.23)\), male sample \((r = 0.23)\) and female sample \((r = 0.23)\). The Avoidance Coping did not show any significant correlations with Resilience (total).

As per tables 3.1, 3.2, 3.3 Personal Competence was positively correlated to Proactive Coping in total adolescent sample \((r = 0.47)\), male sample \((r = 0.46)\) and female sample \((r = 0.49)\). There was statistically significant correlation between Personal Competence and Reflective Coping for total adolescent sample \((r = 0.48)\), male sample \((r = 0.44)\) and female sample \((r = 0.52)\). Personal Competence scores correlated positively with Strategic Planning in case of total adolescent sample \((r = 0.24)\), male sample \((r = 0.24)\) and female sample \((r = 0.24)\). There were positive correlations between Personal Competence and Preventive Coping for total adolescent sample \((r = 0.42)\), male sample \((r = 0.42)\) and female sample \((r = 0.43)\). Significant positive correlation emerged between Personal Competence and Emotional Support Seeking in case of total adolescent sample \((r = 0.18)\) and male adolescent sample \((r = 0.22)\). The Avoidance Coping and Instrumental
Support Seeking did not show any significant correlations with Personal Competence.

The perusal of tables 3.1-3.3 shows significant correlation between Acceptance of Self and Life with Proactive Coping in total adolescent sample \( (r= 0.26) \), male adolescent sample \( (r= 0.23) \) and female adolescent sample \( (r=0.28) \). Statistically significant correlations emerged between Acceptance of Self and Life and Reflective Coping for total adolescent sample \( (r= 0.29) \), male adolescent sample \( (r= 0.24) \) and female adolescent sample \( (r=0.34) \). The Acceptance of Self and Life showed positive correlation with Strategic Planning for total adolescent sample \( (r= 0.15) \) and female adolescent sample \( (r=0.19) \). There were positive correlations between Acceptance of Self and Life and Preventive Coping for total adolescent sample \( (r= 0.25) \), male adolescent sample \( (r= 0.23) \) and female adolescent sample \( (r=0.28) \). Significant positive correlation emerged between Acceptance of Self and Life and Instrumental Support Seeking for total adolescent sample \( (r= 0.15) \) and female adolescent sample \( (r=0.27) \). Acceptance of Self and Life correlated positively with Emotional Support Seeking in cases of total adolescent sample \( (r= 0.24) \), male adolescent sample \( (r= 0.18) \) and female adolescent sample \( (r=0.31) \).

Table 4.1 shows Stepwise Multiple Regression equation for criterion variable Resilience (total) for the total Adolescent sample. A perusal of the table 4.1 shows that Reflective Coping \( (\beta= 0.27) \) and Preventive Coping \( (\beta= 0.17) \) emerged as significant predictors of Resilience (total). Table 4.2 shows the stepwise multiple regression equation for criterion variable Resilience (total) for the male sample. Among males only Preventive Coping \( (\beta= 0.29) \) emerged as significant predictor of Resilience (total). Table 4.3 shows the stepwise multiple regression equation for criterion variable resilience (total) for the female sample. Unlike males, in females Reflective Coping \( (\beta= 0.40) \) emerged as a significant predictor of Resilience (total).

Table 4.4 shows stepwise multiple regression equation for the criterion variable Personal Competence for total adolescent sample. A perusal of
Table 4.4 shows that Reflective Coping ($\beta = 0.26$), Proactive Coping ($\beta = 0.18$) and Negative Family Events ($\beta = 0.09$) emerged as significant predictors of Personal Competence. Table 4.5 shows stepwise multiple regression equation for criterion variable Personal Competence for male adolescent sample. Among males, Preventive Coping ($\beta = 0.23$) and Proactive Coping ($\beta = 0.16$) emerged as significant predictors of Personal Competence. Table 4.6 shows stepwise multiple regression equation for the criterion variable Personal Competence for female adolescent sample. Reflective Coping ($\beta = 0.35$) and Negative Family Events ($\beta = 0.13$) emerged as significant predictors for Personal Competence in female adolescent sample.

Table 4.7 shows stepwise multiple regression equation for the criterion variable Acceptance of Self and Life for total adolescent sample. A perusal of the table shows that Avoidance Coping ($\beta = 0.24$), Reflective Coping ($\beta = 0.18$) and Negative Family Events ($\beta = 0.10$) emerged as significant predictors. (\beta = 0.10) Table 4.8 shows stepwise multiple regression equation for the criterion variable Acceptance of Self and Life for the male adolescent sample. Among males, Avoidance Coping ($\beta = 0.26$) and Negative Family Events ($\beta = 0.16$) were significant predictors. Table 4.9 shows stepwise multiple regression equation for the criterion variable Acceptance of Self and Life for the female adolescent sample. Unlike males, Reflective Coping ($\beta = 0.21$) and Emotional Support Seeking ($\beta = 0.21$) emerged as significant predictors of Acceptance of Self and Life.

Present results do not uphold the hypothesis (2.1) relating Resilience and its subscales to Negative Life Events. The hypothesis (2.2) relating Resilience and its subscales to Proactive coping, Reflective coping, Strategic Planning and Preventive coping, Emotional Support Seeking and Instrumental Support Seeking was upheld. The hypothesis (2.3) relating Resilience and its subscales to Avoidance Coping was not upheld.

Negative life events have been well-documented in pre-adolescents and adolescents, especially in relation to adaptation and competence. Negative life events can have a substantial impact on those who experience
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them. For some, experience with a traumatic life event can leave them confused, withdrawn, depressed, and increasingly vulnerable to the next stressful situation that arises. The clinical literature has found various stressful life events to be risk factors for the development of depression, anxiety, and in extreme cases, post-traumatic stress disorder. Stressful events of both minor and major magnitude (e.g., move to a new school, loss of loved ones, disasters, and family violence) have been found to be predictive of subsequent internalizing and externalizing problems in adolescents. Berden, Althaus and Verhulst, (1990) examined the relationship between major life events and changes over two years in behavioral and emotional problems of children, as reported by their parents. Children with lower socioeconomic status showed a higher incidence of negative life events and those children who had experienced more negative events had more behavioral and emotional problems.

Studies have even shown that stressful events are predictive of increase in symptomatology after controlling for initial levels of maladjustment. However, the amount of variance in maladjustment explained by stressful events has been relatively small. (Compas et al, 1993). At the same time for other individuals, a traumatic experience can serve as a catalyst for positive change, a chance to re-examine life’s priorities or develop strong ties with friends and family (Updegraff and Taylor, 2000)

Grant et al. (2003) conceptualized a model relating negative life events to psychopathology through their influence on biological, psychological, and social processes.

Campbell- Sills and Stein (2007) explained the relationship between resilience and negative life events. Their study subjects were administered a resilience scale, childhood trauma scale and a brief symptom inventory. As per the results of the study, researchers predicted that scores on the resilience scale would moderate the relationship between childhood maltreatment and current psychiatric symptoms. Based upon the scores of trauma and resilience, the subjects were categorized and classified as low
trauma/low resilience, low trauma/high resilience, high trauma/high resilience and high trauma/low resilience. They further explained that resilience moderates the impact of childhood maltreatment on current psychiatric symptoms. Individuals who reported significant trauma and low resilience were highly symptomatic, whereas individuals who reported significant trauma and high resilience had low levels of symptoms.

_Tusai, Puskar and Sereika (2007)_ conducted a study on moderating model of resilience. Stepwise logistic regression was used to determine which variables alone or in combination were significant to psychosocial resilience. The results revealed that negative life events were one of the significant predictors for adolescent resilience. However, when other variables like optimism interacted with bad life events, the negative influence upon psychosocial resilience was decreased. When adolescents experienced bad life events, perceived social support of friends was the most powerful moderator.

_Hjemdal, Aune, Reinfjell and Stiles (2007)_ studied adolescent resilience in relation to depressive symptoms, stressful life events and social anxiety. The correlational analysis revealed significant negative correlation between resilience (total) and stressful life events ($r = -0.28$). Regression analysis further revealed that there were no significant interaction effects between resilience (total) and stressful life events.

_Hands (2008)_ explored the degree of adversity experienced in life or negative life events experienced in life with regard to the development and maintenance of psychological resilience. He reported that the relationships between these psychological and life dynamics are complex, where various factors interact differently under various levels of exposure to negative and positive life events. As an example, it seems that moderate amounts of life adversity actually provide a positive influence on the development of resilience. Further, it appears that positive life experiences have relatively little influence upon perception of control.
Eggum, Sallquist and Eisenberg (2011) explored the relationship between negative life events and resilience in youth. Negative life events were assessed using the Youth Life events Inventory while resilience was assessed in terms of protective factors viz. personal competence, social support and hope. The correlational analysis revealed that negative life events had significant negative correlation with social support ($r=-0.36$) and personal competence ($r=-0.41$).

Li et al. (2012) conducted a study to test the moderating effect of resilience between negative life events and mental health problems. Hierarchical multiple linear regressions were used to analyze associations of the level of resilience with level of negative life events and mental health problems. It was found that resilience score was the strongest predictor, explaining the variance of mental health problems. Negative life events and the interaction effect of resilience and negative life events each explained 2% and 1% of the variance in the scores of mental health problems, respectively. To further analyze the interaction effect, the sample was divided into two groups. Group 1 composed of students with the highest resilience scores and Group 2 composed of students with the lowest scores. Separate regression analyses were subsequently conducted for the two groups. The associations of negative life events with mental health problems were weaker in group 1 compared with group 2. Thus, resilience buffered the effects of negative life events on mental health problems.

In the upcoming section, the studies pertaining to resilience and coping would be discussed. Before discussing the findings in various studies, the relevance of coping in resilience is given in the following paragraph.

Resilient individuals have a repertoire of coping skills that help them to adapt to a specific situation. These coping skills allow them to effectively manage stressful situations, thereby transforming the situations into less stressful ones or enabling the individuals to come to terms with aspects of life that are uncontrollable. Coping skills are intentional responses to resolve stress that are distinct from involuntary reactions, such as experiencing an
increased heart rate or intrusive thoughts. Coping skills can focus on gaining primary control by altering one’s circumstances, or in gaining secondary control, by learning to accept one’s circumstances. The coping styles are generally considered as a protective factor for adaptation, still there is a general agreement that it is difficult to establish a priori which kinds of coping will be adaptive in a given situation. (Glennie, 2010)

Carver, Scheier and Weinturab (1989) explored the coping tendencies in relation to resilient traits viz. optimism, self esteem and hardness. The correlational analysis revealed that active coping was positively associated with optimism, the feeling of being generally able to do something about stressful situation, self esteem and hardness. Also, the denial and behavioral disengagement displayed negative correlation with all resilient traits. The other coping strategy of focusing on and venting of emotions was negatively associated with resilient traits. The active coping and planning were correlated with several conceptually related personality qualities, as were denial and behavioral disengagement. This converging pattern of associations suggested that the coping strategies postulated to be functional are in fact linked to personality qualities that are widely regarded as beneficial. Similarly, coping tendencies hypothesized to be less functional like denial and disengagement were inversely associated with desirable personality qualities like optimism, self esteem and hardness.

Jerusalem and Schwarzer (1992) conducted a study on proactive coping and stress appraisals. It was hypothesized that high proactive coping would be associated with high challenge appraisals, whereas low proactive coping would be linked to higher threat and loss appraisals. The results revealed that proactive individuals perceived their stress as more challenging, and less threatening and loss-based, than their reactive counterparts.

Jew, Green and Kroger (1999) examined the correlation between resilience and coping. The subjects were assessed on the measures of resilience, coping and academic performance. They found that persons scoring higher on the resiliency scale were likely to demonstrate better
Beasley, Thompson and Davidson (2001) assessed resilience in response to life stress. They also explored the role of coping styles and cognitive hardiness in predicting psychological health. The results of the study were that emotion-focused coping; avoidant coping and life events all had a direct impact on measures of resilience. In female subjects, measures that made a significant additional contribution to negative life events in predicting general health were emotion oriented coping and cognitive hardiness. Higher scores in emotion-oriented coping appeared to directly elevate score on general health questionnaire, whilst high scores in cognitive hardiness tend to reduce general health questionnaire scores. Higher scores in emotion-oriented coping directly elevated scores on depression, whilst high scores in cognitive hardiness tend to reduce depression scores. The cognitive hardiness moderated the direct effect of emotion-oriented coping on SCL-Depression scores by reducing its impact on this measure. In male subjects, social diversion-oriented coping made a significant additional contribution to negative life events in predicting general health. Higher scores in social diversion oriented coping directly elevated general health questionnaire scores.

Smith, Dalen, Wiggins, Tooley, Christopher and Bernard (2008) explored the relationship between resilience and coping styles. Coping was assessed by using the Brief COPE (Carver et al., 1989) which measures 14 types of coping including acceptance, active coping, behavioral disengagement, denial, humor, planning, positive reframing, religion, self-blame, self-distraction, substance use, using emotional support using instrumental support and venting. Resilience was found to be positively correlated with active coping and positive reframing and there was negative correlation with behavioral disengagement, denial, and self-blame.

Bernardes, Ray and Harkins (2009) conducted an exploratory study on resilience and coping. The researchers used the COPE Inventory
developed by Carver et al., (1989) to measure coping styles (adaptive and maladaptive). Seven adaptive and five maladaptive coping subscales were used. The adaptive styles were active coping, planning, restraint coping, seeking social support for instrumental reasons, seeking social support for emotional reasons, positive reinterpretation and growth and acceptance and the maladaptive coping comprised of focus on and venting emotions, denial, behavioral and mental disengagement; and alcohol-drug disengagement. The resilience was explored as a function of resilient traits viz. self-esteem hope, optimism, spirituality and religiousness. The results of the study indicated significant positive relationship between resilient characteristics and adaptive coping strategies. Resilient characteristics (self-esteem, hope, and spirituality) were found to have a significant negative relationship with usage of maladaptive coping strategy of behavioral disengagement.

According to Glennie (2010), high correlations between the resilience and coping raised the question of construct validity of resilience as distinct from coping. It was concluded that although coping and resilience are related constructs, they are distinct in that coping refers to a wide set of skills and purposeful responses to stress, whereas resilience refers to positive adaptation in response to serious adversity.

Lee (2011) explored the relationship between negative life events, coping and resilience. Subjects were assessed on the measures of negative life events and coping. Coping was assessed in terms of problem-focused coping, non-productive coping and social support seeking. Results suggested that majority of respondents seemed to employ more problem-focused coping and seek social support rather than use non-productive coping. The further elaboration on qualitative verbatim revealed that positive coping used by adolescents was grounded in resilient traits like ‘taking things in a stride’, positive thinking, seeking social support, seeking emotional support, personal competence and acceptance of self and life. The findings of the current study are in line with this study wherein resilience and its subscales have positive correlation with positive coping strategies like proactive coping, preventive coping, reflective coping, and strategic planning.
Eggum, Sallquist and Eisenberg (2011) examined the perceived stress and adjustment in terms of externalization and internalization in relation to coping styles used and other protective factors assumed to be related to resilience. The protective factors studied were social support, self worth and hope. The correlational analysis showed that experience of negative life events was related to higher internalizing and lower social support and self-worth. Problem-focused coping was negatively related to externalizing. Social support was negatively related to externalizing (although not when age was controlled) and internalizing problems but positively related to each type of coping, self-worth, and hope. Self-worth related negatively to internalizing. Each type of coping was positively related to hope. Moreover, the negative relations were found between the number of negative life events and social support or self-worth. Negative life events did not relate to hope. Each coping type was positively related to hope including the avoidance coping which is in keeping with the findings of current study. There was no evidence that secondary coping (positive reframing) was related to lower maladjustment.

Wu et al. (2012) examined the relationship between adolescent resilience, coping and anxiety. The researchers found that resilience was strongly correlated to cognitive coping and problem solving. Moreover, defensive coping and cognitive coping were also statistically significant predictors of resilience, accounting for 46.5% of total variance. The study emphasized the importance of teaching cognitive coping strategies in adolescence as an effective way to enhance energy towards resilience.

Terzi (2013) assessed the relationship between coping styles and resilience in adolescent sample. Coping Questionnaire Inventory developed by Ozbay (1993), adapted by Ozbay and Sahin (1997) was used to measure coping. Resilience was assessed using the Turkish version of Wagnild and Young Resilience scale (Wagnild and Young, 1993; Griffin and Bartholomew, 1994). The results indicated that secure attachment style, and coping styles of active planning, avoidance/biochemical, and acceptance/cognitive restructuring were significant predictors of resilience. It was found that when secure attachment style scores were low, the presence
of acceptance/cognitive restructuring orientation increased the resilience scores; while when the secure attachment style scores were high, acceptance/cognitive restructuring did not influence the resilience scores.

To conclude, resilient adolescents adapt more positive coping styles than non resilient adolescents.

3. Resilience and Parental Bonding Dimensions

Based on the review of literature the following hypotheses were proposed:

3.1 Resilience (total) and its sub scales (Personal Competence and Acceptance of Self and Life) were expected to be positively related to Perceived Maternal Care and Perceived Paternal Care.

3.2 Resilience (total) and its sub scales (Personal Competence and Acceptance of Self and Life) were expected to be negatively related to Perceived Maternal Overprotection and Perceived Paternal Overprotection.

The perusal of intercorrelation matrix for total adolescent sample (table 3.1), male adolescent sample (table 3.2) and female adolescent sample (table 3.3) showed that there were significant positive correlations between Resilience (total) and Perceived Maternal Care for total adolescent sample (r=0.14) and male adolescent sample(r= 0.18). There were also significant positive correlations between Resilience (total) and Perceived Paternal Care for total adolescent sample (r=0.12) and male adolescent sample(r= 0.20). However, in female adolescent sample, no significant correlations emerged between Resilience (total) and Perceived Maternal Care as well as perceived Paternal Care. Also, significant negative correlations were found between Resilience (total) and Perceived Paternal Overprotection for total adolescent sample (r= -0.19) and male adolescent sample (r= -0.29) There were no significant correlations between Resilience (total) and Perceived Paternal Overprotection for total adolescent sample, male adolescent sample and female adolescent sample. Personal Competence Scale had significant
positive correlation with Perceived Maternal Care in male adolescent sample (r= 0.18). Significant negative correlations emerged between Personal Competence and Perceived Maternal Overprotection in total adolescent sample (r= -0.11) and male adolescent sample (r= -0.18). Personal Competence had significant positive correlation with Perceived Paternal Care in male adolescent sample (r= 0.18). Personal Competence correlated negatively with Perceived Paternal Overprotection in total adolescent sample (r= -0.17) and male adolescent sample (r= -0.28). Acceptance of Self and Life had significant positive correlation with Perceived Maternal Care in total adolescent sample (r= 0.17), male adolescent sample (r= 0.19) and female adolescent sample (r= 0.17). The Acceptance of Self and Life also showed significant positive correlation with Perceived Paternal Care in total adolescent sample (r= 0.15) and male adolescent sample (r= 0.17). No significant correlations emerged among Acceptance of Self and Life and Perceived Parental Overprotection.

Regression analysis with Resilience (total) as the criterion variable revealed that for total adolescent sample and female adolescent sample, none of the dimensions of Parental Bonding emerged as significant predictors. In male adolescent sample, Perceived Paternal Overprotection emerged as one of the significant predictors (β= -0.18) (Table 4.2). Regression analysis with Personal Competence as the criterion variable for total adolescent sample, male adolescent sample and female adolescent sample as shown in tables 4.4, 4.5 & 4.6 revealed that Perceived Paternal Overprotection emerged as significant predictor only in case of male adolescent sample (β= -0.14). Stepwise Multiple Regression Equation for the Criterion Variable Acceptance of Self and Life for total Adolescent Sample depicted in table 4.7 showed that Perceived Maternal Care (β= 0.17) and Perceived Maternal Overprotection (β= 0.13) emerged as significant predictors. None of the dimensions of Parental Bonding emerged as significant predictors for male adolescent sample and female adolescent sample.
Hence, the hypothesis (3) relating Resilience and various dimensions of Parental Bonding has been upheld in majority of cases.

The identification of individuals who exhibit an ability to transcend exposure to adversity raises a very important issue on understanding the factors and processes that contribute to resilience. Parental attachment and bonding are considered to be one of the important factors that may affect resilience in adolescents having high risk backgrounds. The impact of parental attachment on the adolescent’s development and functioning has gained appreciation in past decades. Evidence continues to accumulate that parental bonding may have a crucial influence on adolescent’s competence and resilience. Warm, authoritative and responsive parenting is usually crucial in building adolescent resilience. Parents who develop open, participative communication, problem-centered coping, confidence and flexibility tend to manage stress well and help their families to do the same. (McHale, Kuersten and Lauretti, 1996).

Attachment theorists speculate that children with secure attachment relationships tend to perceive themselves as valuable and recognize the caregiver as being responsive. This internal positive working model of self serves the child with great capacity to cope with emotions effectively in different circumstances. Alternatively, a parent-child relationship marked by insecurity fosters an insecure working model in which the child perceives himself or herself negatively. Subsequently, these maladaptive views of self may attribute to unfavorable outcomes and put the child at risk for maladjustments. (Bowlby, 1988)

Ainsworth, (1989) accentuated the importance of quality of parent-child relationships on child’s developmental outcomes. He further emphasized parental bonding as the foundation for later working models, which is a person’s mental representation about one’s self worth and competence.

The majority of research on factors and processes that contribute to resilience has been carried out in the context of risk factors and protective
factors. Parental attachment and bonding are considered to be important factors that may affect resilience in adolescents from high risk backgrounds. There are various studies exploring the relationship between parental bonding and adolescent resilience. These studies have operationalized the construct of resilience in various ways. While some have explored resilience in terms of resilient traits like high self-esteem, social empathy, easy temperament and pro-social behavior; others have equated resilience to absence of psychopathology. With the advent of positive psychology, the recent studies have looked upon the parental bonding as a buffering factor in negative developmental outcomes. These studies have added to the evidence linking resilience to parental bonding and assessed the construct of resilience in terms of non-appearance of psychopathology. Such theorists postulate that the adolescence is a time of rapid development and change. In this developmental period, adolescents have to struggle with a large number of stress factors which makes them vulnerable to psychopathology. However, the so-called resilient adolescents tend to deny this expectation by showing successful adaptation and safe escape route from the psychopathology. The absence or presence of psychopathology is thus an indirect reflection of one’s resilience where resilient individuals are likely to escape any form of psychological morbidity while the ones with limited resilience tend to develop the same. A considerable amount of research has demonstrated an empirical relationship between experiences of perceived parental bonding and psychological outcomes in later life. (Arbona and Power, 2003)

The evidence suggests a strong link between the dimensions of the Parental Bonding Index and psychiatric conditions. Low care and high control, conceptualized as “affectionless control” has been related to neurotic conditions, whereas high care and high control, conceptualized as “affectionate constraint,” is related to dependency, hypochondriasis, asthma, and panic disorders (Parker, 1990).

Wyman, Cowen, Work and Parker (1991) conducted a longitudinal investigation of risk and adaptation in children from urban, highly stressed families and showed that children’s mastery of normative developmental tasks
was significantly more likely to happen when parents were emotionally responsive. It has been suggested that the presence of warm, nurturant or supportive relationships with at least one parent may act to protect against or mitigate the effects of family adversity. (Bradley et al., 1994)

Antonucci (1994) opined that the presence of secure bonding relationships in adolescence provides a secure base that leads to feelings of personal control and self-efficacy over a lifetime and allows adolescents to make appropriate choices when confronted with stress.

A study by Barber et al. (1994) reported that over-protectiveness in the parent-child relationship often functions to inhibit adolescent social competence by fostering “internalized problem” and failure to achieve emotional autonomy. Ingram et al. (1998) proposed that when caregivers are overprotective, the child may be less likely to believe that he or she can act or have a significant influence on the environment. Studies show that these early parental interactions also play a key role in long-term functioning of adolescents. It is also suggested that mothers who overprotect, manipulate, or are affectless hinder the development of self-confidence and independence, generating emotionally fragile adults with fewer resources to manage traumatic and adverse situations (Handa, Ito, Tsuda, Ohsawa and Ogawa, 2009).

Arbona and Power (2003) examined the relationship of maternal and paternal attachment to self esteem. Consistent with theoretical formulations, securely attached adolescents have a more positive sense of self-esteem. The self esteem can be treated as a source for personal competence which is one of the major dimensions of adolescent resilience. Moreover, securely attached adolescents reported less involvement in antisocial behaviors than their less securely attached peers which itself is an indirect measure of adolescent resilience and positive outcome.

Majority of studies have reported resilient outcomes in adolescence in light of adequate parenting. However, there are studies in which adolescents
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with suboptimal parenting have shown resilient behavior. Bolger and Patterson (2003) reported that healthy child development under suboptimal parenting conditions and low levels of parent-child bonding. It is postulated that youths who lack a close relationship with their primary caregiver have opportunities to expand their interpersonal resources outside the family and are not constrained in using other adults or relational supports. It is assumed that youths’ ability to draw on interpersonal resources is malleable and that interpersonal resources linked to resilience tend to be universal across contexts rather than specific. The second possible explanation for the specific findings of regression analysis wherein the parental bonding has not emerged as a significant predictor of resilience could be the fact that low levels of bonding to a primary parent reduce youths’ capacity to draw effectively on other interpersonal resources (e.g., caring adults outside the family) that may help to promote their competence, thus circumscribing the range of potential resources available to such youths. Under conditions of low bonding, resilient functioning is expected to be associated with higher levels of youth-centered competencies, such as self-efficacy, perceived competence, realistic control, and expectations for the future.

Lin, Sandler, Ayers, Wolchik and Luecken (2004) differentiated between the resilient and stress-affected adolescent and found that the level of warmth and support provided by the caregiver was one of the differentiating variables. Higher levels of caregiver warmth and discipline and lower levels of caregiver mental health problems were family-level variables that significantly differentiated resilient children from affected children. Bereaved children’s perceptions of less threat in response to negative events and greater personal efficacy in coping with stress were child-level variables that differentiated resilient from affected status. Family and child variables were entered into a discriminant function analysis that correctly classified 72% of the sample. The findings were consistent with a model of resilience in which multilevel variables account for children’s positive adaptation following exposure to adversity.
Rikhye et al. (2007) examined the correlation between parental bonding and depressive symptomatology as an indirect measure of resilience and found significantly negative correlation between perceived maternal care, perceived paternal care and depressive symptomatology while there were positive correlation between perceived maternal overprotection, perceived paternal overprotection and depressive symptomatology.

Compos, Besser and Blatt (2010) examined the relationship between maternal bonding and resilience. The resilience was assessed indirectly by equating it to absence of current depressive symptoms. Thus, individuals who exhibited the signs of depression were considered low on resilience. It was found that low levels of maternal care and high levels of maternal overprotection significantly associated with increased depressive symptoms.

Moitra and Mukherjee (2010) studied the parenting behavior and adolescent resilience in view of presence of delinquency. A significant negative correlation existed between mother’s caring attitude and delinquency, whereas a significant positive correlation emerged between maternal overprotection and delinquency. Moreover, the authoritative style appeared as the best style of parenting.

Miranda et al. (2012) studied a group of high risk individuals with lower socio economic status, who had an evidence of recent traumatic event. The results showed that having an affective maternal relationship reduced the likelihood of developing psychopathology. The findings also suggested that an affective maternal relationship is a protective factor for depressive symptoms.

Terzi (2013) explored the relationship between parental attachment and resilience. Parental attachment was assessed in four factors viz. secure attachment style, fearful attachment style, preoccupied attachment style and dismissing attachment style. The result of correlational analysis revealed that resilience total scores correlated positively with the secure attachment style. (r=0.37). Hierarchical multiple regression analyses were performed in order to examine the impact of a secure attachment style on resilience. It was found
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that secure attachment style alone predicted 14% variance in resilience total scores.

Affective parental relationship is a necessary condition to promote the independence of children as they develop. Careful but encouraging parents are crucial for the emotional development of children. In contrast, unhealthy parental practices that are indifferent, negligent, or overprotective are negatively associated with adolescent resilience.

Resilience and Eysenckian Personality dimensions

Based on the review of literature the following hypotheses were proposed:

4.1 Resilience (total) and its sub scales (Personal Competence and Acceptance of self and Life) were expected to be positively related to Extraversion.

4.2 Resilience (total) and its sub scales (Personal Competence and Acceptance of self and Life) were expected to be negatively related to Neuroticism and Psychoticism.

A glance at Intercorrelational matrixes in tables 3.1, 3.2, 3.3 reveals that there was significant negative correlation between Resilience (total) and Psychoticism in total adolescent sample \((r=-0.13)\) and male adolescent sample \((r=-0.19)\). The results also revealed a significant positive correlation between Resilience (total) and Extraversion in total adolescent sample \((r=0.13)\) and female adolescent sample \((r=0.18)\). Social Desirability was positively associated with Resilience (total) in total adolescent sample \((r=0.14)\).

Personal Competence was found to be negatively correlated to Psychoticism for total adolescent sample \((r=-0.14)\) and male adolescent sample \((r=-0.21)\). There were no significant correlations among the Personal Competence, Neuroticism and Extraversion. Personal Competence correlated
positively with social desirability in total adolescent sample \( (r=0.18) \) and male adolescent sample \( (r=0.23) \).

The sub scale of resilience, Acceptance of Self and Life was positively correlated to Extraversion in total adolescent sample \( (r=0.14) \) and female adolescent sample \( (r=0.23) \). No significant correlations emerged among Acceptance of Self and Life and Neuroticism, Extraversion and Social Desirability.

The regression analysis further revealed that none of the Eysenckian Personality Dimensions emerged as a significant predictors for Resilience (total) as well its sub scales of Personal Competence and Acceptance of Self and Life.\( \text{(tables 4.1- 4.7)} \)

Thus the hypothesis (4) was partially upheld in view of the results obtained.

The obtained findings can be said to be in line with available literature as well. Personality traits are traditionally conceptualized as dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions across developmental periods and contexts. Advances in the field of personality have put more emphasis on the interface between personality, resilience and psychopathology. The dimensional model assumes there are individual differences in personality structure regarding their vulnerability or resilience to mental distress.

Robins, John, Caspi, Moffitt and Stouthamber-Loeber (1996) investigated the relationship between the Five- Factor model (FFM) \( \text{(Costa and McCrae, 1992)} \) and the resilient/ overcontrolled/ undercontrolled typology. Using Big Five Inventory, they found that the resilient type was characterized by above average scores on all five dimensions (neuroticism reverse coded).

Furnham, Crump and Whelan (1997) conducted a study to validate the NEO inventory and used subjective ratings on resilience by trained
assessors. They found a strong negative association between resilience and neuroticism ($r = -0.71$).

Riolli, Savicki and Cepani (2002) examined the relationship between Big Five personality dimensions and Resilience. The researchers of the study operationally defined resilience as higher than predicted psychological adjustment in face of stressor. Thus, the personality was measured using Big Five personality factor approach (Fossum, Weyant, Etter, and Feldman Barrett, 1998) and resilience was measured using the Brief Symptom Inventory (BSI; Derogatis and Melisaratos, 1983). The entire sample was divided into high resilient and low resilient groups on the basis of their deviation from the predicted regression line between overall psychological adjustment and reported stressful events. That is, if a participant showed a lower general symptoms score than predicted in relation to the number of stressful events they reported, they fell into the high resilient category. Conversely, if their general symptoms score was higher than predicted for the number of reported stressful events, they fell into the low resilient category. A MANOVA indicated significant differences between resilient and non-resilient groups based on personality dimensions. It was seen that resilience in the face of stress was related to a combination of higher extraversion, openness to experience and conscientiousness paired with lower neuroticism. The researchers reported that the personal characteristics of individuals who tolerated stressors with less psychological distress (the resilient group) include a more positive outlook, a tendency to engage others, a receptiveness to new experiences along with a tendency to be more disciplined and organized. A multiple regression was also done to see which personality variables contributed to overall psychological adjustment above and beyond stress itself. The results indicated a significant relationship of stress and personality with resilience. Although personality factors increased the explanatory power of stress alone, no specific factor or pattern of factors emerged beyond the impact of stressful events. The combination of higher neuroticism and lower extraversion in the presence of stressful events was related to greater maladjustment.
Davey, Eaker and Walters (2003) examined the relationship between the resilience and personality dimensions. The researcher used the cluster analysis to identify the subgroups of adolescents having relatively homogeneous resilient profiles. The two cluster analysis yielded one group reporting low resilience and one group reporting high resilience. The first group, low resilience or low protective, scored high on disagreeableness and emotional instability and low on extraversion, agreeableness, and openness to experience. The second group, high resilience or high protective, scored low on disagreeableness and emotional instability and high on extraversion, agreeableness, and openness to experience.

Campbell-Sills, Cohan and Stein (2004) reported a negative association of resilience with neuroticism and a positive association with extraversion and conscientiousness. Linley and Joseph (2004) found consistent support for the positive relationship between resilience and extraversion, openness to experience, agreeableness and conscientiousness while they reported negative relationship with neuroticism.

Letzring, Block, and Funder (2005) studied ego resilience in relation to Big Five personality traits. They found that in case of females ego resilience scale scores were positively related to the Big Five personality traits of extraversion, agreeableness, conscientiousness, and openness, and negatively related to neuroticism. However in males, ego resilience was positively related to extraversion and openness, only.

Campbell-Sills, Cohan and Stein (2006) also assessed the relationship between adolescent resilience and personality. They used the Connor Davidson Resilience scale to measure the resilience and NEO Five factor personality inventory to measure personality. They found that resilience was negatively associated with neuroticism and positively related to extraversion and conscientiousness.
Nakaya, Oshio and Kaneko (2006) also found significant negative correlation of scores on Adult Resilience Scale and Neuroticism dimension of Big Five Personality questionnaire accounting for 35 % variance.

Another study conducted by Narayanan (2007) explored the relationship between resilience and Eysenckian personality dimensions among post-graduate students (both males and females). Findings revealed that, as expected, psychoticism, extraversion and neuroticism to have a significant effect on resilience. Low psychoticism, high extraversion and low neuroticism groups exhibited significantly higher resilience than high psychoticism, low extraversion and high neuroticism groups respectively. The personality dimensions studied did not interact significantly with one another as regards to resilience.

Singh and Yu (2010) explored the relationship between Big Five personality inventory and resilience. As per the results of study, resilience scores manifested statistically significant and salient relationships with the five factor model personality constructs. Resilience demonstrated a strong inverse relationship with neuroticism, a construct that encompasses proneness to negative emotions, poor coping, and difficulty controlling impulses. There was strong positive relationship of resilience with other Big Five dimensions viz. extraversion, conscientious, openness to experience and agreeableness.

Fayombo (2010) also conducted a similar study to establish the relationship between personality traits and psychological resilience among adolescents and similar results were replicated. He conducted regression analysis and found that personality traits jointly contributed 32% ($R^2 = 0.32$) of the variance in psychological resilience where conscientiousness emerged as the best predictor while agreeableness, neuroticism and openness to experience were other significant predictors. However, extraversion did not contribute significantly.

Shiner and Masten (2012) studied childhood personality as a harbinger of competence and resilience in adulthood. This study examined
the significance of childhood Big Five personality traits for competence and resilience in early adulthood. Resilience was defined in terms of adaptive success in age-salient developmental tasks despite significant adversity throughout childhood/adolescence. Regression analysis showed significant main effects of childhood personality predicting adult outcomes, controlling for adversity, with few interaction effects. In person-focused analyses, the resilient group in emerging adulthood and young adulthood (high competence, high adversity) showed higher childhood conscientiousness, agreeableness, and openness and lower neuroticism than the maladaptive group (low competence, high adversity). The competent (high competence, low adversity) and resilient groups showed similar childhood traits.

To conclude, the review of literature clearly demonstrates that well-adjusted personality traits have significant positive correlations with resilience. In majority of studies the negative aspects of personality like neuroticism and psychoticism have been found to be negatively associated with resilience and its correlates.

5. Gender Differences in Resilience and its correlates

Based on the review of literature the following hypothesis was proposed:

5.1 Male and female adolescents were expected to score differentially on Resilience and its correlates.

A glance at t-ratios (Table 2.1) revealed that there were no statistically significant differences among male and female adolescents on resilience (total) as well as its subscales of Personal Competence and Acceptance of Self and Life.

The perusal of table 2.1 reveals that there were no significant gender differences on Global Trait Emotional Intelligence; however males scored significantly higher on Emotion Regulation (t=0.10, p <0.01), Impulsiveness (Low)(t=2.31, p<0.05), Stress Management (t= 2.17, p<0.05), Emotion
Management ($t=2.30, p<0.05$), Assertiveness ($t=2.28, p<0.05$), Self Control ($t=3.30, p<0.01$) and Sociability ($t=2.45, p<0.05$).

The perusal of table 2.1 reveals females scored higher than males on Fantasy Scale ($t=3.41, p<0.01$), Empathic Concern ($t=3.82, p<0.01$), Perspective Taking ($t=3.76, p<0.01$) and Personal Distress ($t=3.93, p<0.01$).

The persual of table 2.1 reveals significant gender differences on Negative Family Events ($t=2.29, p<0.05$), however, no significant differences emerged on Negative Individual Events. Females scored higher than males on Instrumental Support Seeking ($t=3.37, p<0.01$), and Emotional Support Seeking, ($t=2.57, p<0.01$). No significant gender differences emerged on Proactive Coping, Reflective Coping, Strategic Planning, Preventive Coping and Avoidance Coping.

The perusal of table 2.1 reveals that no significant gender differences emerged on Perceived Maternal Care, Perceived Maternal Overprotection, Perceived Paternal Care and Perceived Paternal Overprotection.

Persual of table 2.1 reveals that male adolescents scored significantly higher than female adolescents on psychoticism ($t=3.80, p<0.01$). Female adolescents scored significantly higher than male adolescents on Neuroticism ($t=3.80, p<0.01$) and Extraversion. ($t=2.58, p value<0.05$).

The study of gender differences has been a common tradition in psychological research for years. Fergusson and Horwood (2003) conducted a longitudinal study on adolescent resilience in response to the childhood adversity. The results suggested that gender acts as one of the factors promoting resilience by compensating for the childhood adversity. They reported that being female reduced risks of developing externalizing, whereas being male reduced risks of developing internalizing responses. These results suggest the presence of gender specific strengths and vulnerabilities that may act to mitigate or exacerbate the effects of family adversity on risks of problems in adolescence. The study suggested the gender specific strengths and vulnerabilities with femaleness providing
resilience to externalizing but vulnerability to internalizing, whilst maleness provides vulnerability to externalizing but resilience to internalizing. These findings also illustrated the important point that in the analysis of resilience it is important to distinguish between resilience to externalizing responses and resilience to internalizing responses. The results show that what may confer resilience to one outcome may increase vulnerability for another.

**Friborg et al. (2005)** explored the gender effects in resilience while developing a new resilience scale. The scale measured resilience in five dimensions: personal competence, social competence, family coherence, social support and personal structure. The gender differences were assessed for all the dimensions of resilience scale and the t-test revealed that females reported significantly higher levels of ‘social support’ than males, whereas males reported sub-significantly higher levels of ‘personal competence than females.

**Hjemdal et al. (2006)** studied gender differences with regard to psychological construct of resilience using the resilience Scale for Adolescents (READ). The scale measured the adolescent Resilience in five major factors: personal competence, social competence, structured style, family cohesion and social resources. The author explored gender differences in all five factors and resilience (total). An independent sample t- test showed that boys reported significantly higher levels of personal competence than girls. ($t= 2.89$, $p$ value<0.01) whereas girls reported higher levels of Social Resources. ($t= -2.70$, $p$ value< 0.01). There were no significant differences on Social Competence, Structured Style and Family Cohesion.

**Tusaie, Puskar and Sereika (2007)** also reflected upon gender differences in psychological resilience in adolescents. They conceptualized resilience as a composite variable which was measured by Reynolds Adolescent Depression scale (RADS), Drug Use Screening Inventory and four coping subscales of Coping Response Inventory- Youth Form. (CRI-Y). The subjects who scored lower than mean were considered resilient. The biological influences proposed to influence the resilient process were
indicated by the gender differences. Girls reported significant lower scores on resilience as compared to boys.

Smith et al. (2008) developed a new Brief Resilience scale and explored the role of personal characteristics like gender on obtained resilience scores. The researcher found that resilience scores were predictably related to gender where males scored significantly higher than females.

Campbell-Sills, Forde and Stein (2009) made a scientific investigation of resilient responses to stress and trauma. Results revealed that women scored significantly lower than men on resilience. Regression analysis further revealed that 11% of the variance in resilience was explained by demographic variables alone including gender as one of them.

Morano (2010) explored the role of gender in resilience and coping with trauma. The findings suggested that there were limited differences between male and female subjects in terms of perceived resilience. However, gender differences manifested in primary and secondary appraisals of their experiences and in the types of coping skills employed by males and females.

Looking comprehensively on various studies on gender differences in resilience, few studies have reported no gender differences on resilience while other studies which have reported males having higher resilience than females. The other few studies which have reported females having higher resilience than males, the researchers have attributed the high resilience of male to reporting bias whereby men are more concerned with appearing strong in face of stress and hence they are more likely to report higher score on resilience Scale. It is socially desirable for males to appear more resilient in stressful situations.

Emotional intelligence has proven to be a relevant construct in various domains of human life, development and adjustment. There is a wide belief that female gender is linked with better knowledge of emotions. There are both social as well as biological explanations for such feminist vision of emotions. (Nolen-Hoeksema and Jackson, 2001). The biological
explanation proposes that women’s biochemistry is better prepared to consider one’s own emotions and those of others as an important element in survival. In support of this idea, certain areas of the brain dedicated to emotional processing can be larger in women than in men (Baron-Cohen, 2002; Gur, Gunning-Dixon, Bilker, and Gur, 2002), and cerebral processing of emotions differs between men and women (Jausovec and Jausovec, 2005).

Dawda and Hart (1999) explored gender difference in Emotional Intelligence while examining the reliability and validity of a measure of emotional intelligence, the Bar-On Emotional Quotient Inventory (EQ-I). This scale measured the EQ-i total and various dimensions of emotional intelligence including the Intrapersonal dimension: Emotional self-awareness, assertiveness, self regard, self actualization and independence; Interpersonal dimension: Empathy, interpersonal relationship and social responsibility; Adaptation dimension: Problem solving, reality testing and flexibility; Stress Management dimension: Stress tolerance and impulse control; General mood dimension: happiness and optimism. On applying the t test, there were no significant gender differences for the EQ Total score or the EQ composite scales. However, women scored significantly lower than men on independence and optimism subscales and higher on social responsibility subscale.

Petrides and Furnham (2000) explored gender differences in measured and Self-Estimated Trait Emotional Intelligence. Researcher used Emotional Intelligence Questionnaire (Schutte et al., 1998) as a measure for EI while the Self-Estimated Trait Emotional Intelligence measure was a questionnaire modeled on the tool devised to measure self-estimated multifaceted intelligence by Furnham et al., (1997). The study results depicted that there were no significant gender differences on total measured trait EI and its subscales except that on ‘social skills’ factor females scored significantly higher than males. On the contrary, there were marked gender differences in Self-Estimated EI Scores. It was found that males believed they had higher EI than females. The researchers further opined that positive self-
estimation (High EQ) is related to psychological adjustment and self-esteem, whereas negative self-evaluation could be related to depression.

**Saklofske, Austin and Minski (2003)** measured gender differences on emotional intelligence using trait EI Scale devised by Schutte et al., (1998). Results revealed the mean emotional intelligence scores were higher in females as compared to males. Further comparison on various sub scales of the measure revealed that females scored higher than males on the appraisal of emotions and social skills factors whereas males scored higher than females on utilization of emotions factor. However, there were no significant differences in scores between males and females on the Optimism/Mood Regulation factor.

**Mikolajczak, Leroy and Roy (2006)** investigated the psychometrical properties of the Trait Emotional Intelligence Questionnaire (TEIQue, Petrides and Furnham, 2003) and reported significant results with respect to gender differences on emotional intelligence. With the exception of the factor well-being, findings revealed significant gender differences. Females scored significantly higher on emotionality whereas men scored significantly higher on self-control and sociability. As a result, men were found to score higher on global trait EI than women.

**Alkadhar (2007)** also conducted a study on emotional Intelligence and psychological health of Kuwait College students. They used two measures of EI, one based on the ability model (The Arabic Test for Emotional Intelligence) and the other on the mixed model (The Emotional Intelligence Questionnaire). No significant differences were found between the genders on the Total Emotional Intelligence Questionnaire scores.

**Rodeiro, Bell and Emery (2009)** investigated the gender differences in trait emotional intelligence and its relationship with scholastic performance. Gender differences in trait EI and in each of the subscales and factors that the TEI Questionnaire provides were tested via independent samples t-tests. t-tests did not reveal significant differences between boys and girls in the
emotion expression, impulsivity (low), and emotion perception subscales. However, males scored significantly higher than females on total trait emotional intelligence, self esteem, self motivation, emotional regulation, happiness, stress management, emotional management, optimism, adaptability, assertiveness, well being, self control and sociability. Girls scored higher only on trait empathy.

Williams, Daley, Burnside and Hammond-Rowley (2009) measured gender differences in trait EI as well as the objective measures of emotional ability. The researcher used the Trait Emotional Intelligence Questionnaire – Adolescent Short Form (TEIQue – ASF) to measure global trait EI or ‘trait emotional self-efficacy’ (Petrides et al., 2006) and the Schutte Self-Report Emotional Intelligence (SSREI; Schutte et al., 1998) as tools to measure Trait EI. The objective measures of emotional ability were the emotion focusing task, story stems and the facial expression recognition. Gender differences across all measures of emotion were examined using independent sample t-tests. It was found that there were no gender differences on the trait EI measures. On the objective measures of emotional ability there were no gender differences on the emotion focusing Test but females had significantly higher scores than males on the story stems and facial expressions of emotion stimuli.

Shin (2011) explored gender differences on trait emotional intelligence. The results showed no significant differences on trait emotional intelligence. The authors further assessed gender differences in the degree to which the males and females are likely to overestimate or underestimate the trait emotional intelligence. It was found that 80% of male participants perceived their own gender to be better in EQ level, whereas 56.67% female participants had the same thought. In conclusion, majority of males and females perceived males to have higher level of EQ than females.

Davis and Humphrey (2012) explored gender differences in emotional intelligence using both the ability based as well as trait based measure of EI. The Trait Emotional Intelligence was measured by using the Trait Emotional
Intelligence Questionnaire-Adolescent Short Form (TEIQue-ASF; Petrides, 2009) while the ability EI was measured using the Mayer–Salovey–Caruso Emotional Intelligence Test-Youth Version, Research Edition (MSCEIT-YVR; Mayer, Salovey, and Caruso). Results showed females to have significantly higher levels of ability EI while there were insignificant differences in trait EI.

Fernandez-Berrocal, Cabello, Castillo and Extremera (2012) addressed the basic question of understanding gender differences in emotional intelligence using the "Mayer, Salovey, Caruso Emotional Intelligence Test" (MSCEIT; Mayer, Salovey, and Caruso, 2002). Multivariate analysis of variance (MANOVA) was conducted to compare the mean scores of men and women on the MSCEIT. Gender accounted for 4% of the variance in EI. The univariate F tests showed significant differences between males and females for facilitating, understanding, managing and strategic area. There were no significant gender differences in perceiving or experiential area. A new perspective was taken in this research by controlling for age, which is one of the principal socio-demographic characteristics that interacts with gender as well as EI, in order to clarify how gender affects EI. Results showed that the gender differences initially reported for EI are mediated completely by age for the branches of facilitation and understanding, for strategic area and for total score, and partially by age for the dimension of emotional managing. These findings indicate the need for caution when concluding that gender affects EI in the absence of tests for possible interactions between gender and other variables that may influence EI.

Keeping in view the factorial invariance and latent mean difference across gender and age in trait emotional intelligence, Tsaousis and Kazi (2013), examined whether the measurement structure underlying trait EI is equivalent across genders. The analysis showed that females had higher scores than males in Caring and Empathy and Expression and Recognition of Emotions, but lower scores in the Use of Emotions. There was no gender effect in Control of Emotions.
Many studies have reported no significant gender differences on global EI. The possible explanation that has been provided is the result of moderate to strong gender differences in opposite directions at subscale levels, for instance male scoring higher on assertiveness counterbalance the females scoring higher in emotional expression. The stereotype of women being more emotional still survives in present day. It has been affirmed that women tend to be more emotionally expressive than men. They recognize other people's emotions better and are more perceptive. (Tapia and March, 2001). The fact that girls develop verbal skills earlier than boys means they are more skillful at articulating their feelings and have greater expertise in use of words. Therefore, it seems that, when comparing men and women, women tend to show greater knowledge about emotional experiences, provide more complex and differentiated description about emotions and use a broader emotional vocabulary. (Fivush et al., 2000; Sanchez et al., 2008). However, looking at the results of present study, there seems deviance from such stereotypes as males outscored females on emotional regulation, impulsivity (low), stress management, emotional management, assertiveness, self control and sociability. One of the possible justifications for such findings could be the changing sex roles and progressive increase in the androgynous behavior across generations. (Guastello and Guastello, 2003) The gender differences are being reduced in newer generations due to the influence of culture and education. The alternate explanation for gender differences on trait EI dimensions is attributed to self report. Brackett and Mayer (2003) discussed that woman self report lower emotional intelligence than the actual emotional potential they have. This makes one to suppose that females underestimate themselves while men tend to overestimate them with respect to their emotional skills.

Fernandez, Dufey and Kramp (2011), estimated gender differences on Interpersonal Reactivity while reassessing the psychometric properties of Interpersonal Reactivity Index. As per the findings of the study females scored higher than males on three out of four subscales of empathy viz. Fantasy Scale, Empathic Concern and Personal Distress while there were
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non-significant differences on Perspective Taking. These findings are also in consonance with findings of present investigation.

Brien, Konrath, Gruhn and Hagen (2012) explored the effect of gender and age on empathic concern and perspective taking. The researchers reported a gender differences with women scoring higher than men on empathy.

Imran, Aftab, Haider and Farhat (2013) compared boys and girls on the dimensions of emotional intelligence and interpersonal reactivity. The results revealed that women showed statistically significant higher scores on appraisal of emotions, regulation of emotions, empathic concern Scale and Personal distress scale while non significant differences emerged on emotional intelligence (total), utilization of emotions and perspective taking.

Laure, Mella, Studer, Gruhn and Labouvie-Vief (2013) validated a French version of the Interpersonal Reactivity Index (IRI) and explored gender differences. The researchers observed sex and age differences consistent with findings in the literature with women reporting higher scores in empathic concern and fantasy than men.

To have a better understanding with regard to the factors showing greater empathy in females, Rueckert, Branch, Doan (2011) explored whether the difference might be due to levels of reported emotions and whether they are influenced by the nature of the target of the empathy. Empathy was measured using Interpersonal reactivity index as well as the researchers developed a new empathy scale that measured participants’ self-reported emotion for events that occurred to themselves, as well as to other people. Participants were asked to rate how they would feel if the event happened to a good friend, and well as how they would feel if it happened to someone they did not like. The results showed that authors replicated the common finding that women score higher on the IRI. The difference was only significant for Empathic Concern and marginally significant for Personal distress. It was also seen that women reported more intense ratings of
happiness and sadness than men, but report less or equal levels of anger. The results of this study suggested that gender differences in empathy may reflect, at least in part, differences in emotional reactivity. Analyses of gender differences as measured by newly devised scale revealed that scores did not show an overall gender difference in empathy, but revealed that women’s level of empathy is more affected by the relationship they have with the other person. They showed somewhat greater empathy levels toward friends, but lower levels towards enemies.

The recent advancements in the field of science and study of human behavior has lead to subsequent merging of social and pure sciences and the modern psychologists have started to explore the neural mechanisms behind individual differences in human behavior.

Banissy, Kanai, Walsh and Rees (2014) explored the inter-individual differences in empathy. They examined whether inter-individual variability in different components of empathy were related to differences in brain structure. The results showed that scores on each subscale of the IRI were consistent with previously published norms for this measure with females displaying higher scores than males. They found that individual differences in affective empathic abilities oriented towards another person were negatively correlated with gray matter volume in the precuneus, inferior frontal gyrus, and anterior cingulate. Differences in self-oriented affective empathy were negatively correlated with gray matter volume of the somato-sensory cortex, but positively correlated with volume in the insula; cognitive perspective taking abilities were positively correlated with gray matter volume of the anterior cingulate; and the ability to empathize with fictional characters was positively related to gray matter changes in the right dorsolateral prefrontal cortex. Such studies pave a futuristic way to create and refine the neuro cognitive models of human behavior.

Based upon review, one can say that female gender is definitely more empathic; however, the females tend to outscore males mainly in the emotional or affective domain of empathy which can be attributed to self
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Females tend to report higher levels of emotion than males. It is possible that what appears to be a gender difference in empathy is actually a difference in reported level of emotion. But despite such explanations, the plethora of studies showing females scoring higher on empathy can’t be ignored.

Although the stress is universal in adolescence, however, there are studies that have examined the role of gender in stress perception. It has been repeatedly shown in multiple studies that girls report overall higher level of stress than boys. (Simmons et al., 1987; Seiffge-Krenke, 1995).

Review of literature studies in 80’s and 90’s clearly indicated that gender differences existed in relation to stress perception. Studies investigating issues of stress and coping in adolescents have indicated that gender differences exist in relation to reported perceptions of desirability of life change events (Newcomb et al., 1986; Byrne et al., 2007; Jose and Ratcliffe, 2004; Rudolph, 2002).

Shevland (2003) explored the gender differences with respect to coping strategies used by adolescents staying in residential care facility. They reported that females tended to talk to friends or seek out assistance from a teacher or counselor. However, males chose to ignore the conflict and were much less likely to discuss their anger with parents or another community member. They also reported differences in terms of available support as the males reported a greater sense of support from their parents than did females.

A study on adolescent coping and stress by Kausar and Munir (2004) compared male and female adolescents with respect to four factors of coping: active-practical coping; active distractive coping; avoidance-focused coping and religious-focused coping. Active-practical coping included strategies that intend to find practical solution to the problem, e.g. “sought professional help to solve the problem”.

Strategies such as “started socializing and meeting with people”, “going out with friends” were included in active-distractive
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coping. Avoidance-focused coping comprises of strategies such as “tried to forget what had happened”, “started avoiding others”. Religious-focused coping included statements such as “prayed to God”, “started going to religious gatherings”. Results were that irrespective of type of coping, girls employed significantly more strategies to cope. No differences were found on the use of active practical, avoidance, religious focused coping. The only gender difference was found in active distractive coping where males used significantly more active distraction coping than females.

**Byrne, Davenport and Mazanov (2007)** attempted to understand the profiles of adolescent stress and further explored gender differences in stress perception. It was found that girls scored higher than boys in perceiving stress in home life, school performance, romantic relationships, peer pressure, future uncertainty, school/Leisure conflict and the emerging adult responsibility.

**Jaggi (2008)** explored the gender differences on presumptive stressful life events in adolescent population in Indian settings. The findings were contrary to the prevalent norms wherein males scored higher than females on stressful life events both in past one year as well as retrospectively reporting stress in life time.

**Seiffe-Krenke, Aunola and Nurmi (2009)** explored gender differences on stress perception and coping during adolescence in view of situational and personal factors. It was seen that girls reported future related stress more than boys. The continuous increase in future-related stress in girls during late adolescence may highlight that the developmental deadlines of young adulthood for females come earlier than for males. The girls also reported a relatively high level of stress in relationship with peers. This finding may be explained by the fact that girls spend more time in intimate peer groups than boys do and that girls also experience more conflict and more jealousy in these relationships. However, girls reported lower levels of perceived stress in romantic relationships than boys did. There were significant gender differences in coping as well where girls showed a higher level of active coping and support seeking than boys did.
Thorsteinsson, Sveinbjornsdottir, Dintsi and Rooke (2013) explored gender differences in coping among adolescents. Five coping strategies were measured using the Measure of Adolescent Coping Strategies. There were statistically significant effects of gender differences on acting out, rumination, and seeking social support with females scoring higher than males. No significant differences emerged on distraction and self care.

Despite many studies to understand gender differences in coping behavior gender differences in coping have not been established conclusively. None the less there are stereotypes about male coping behaviors where men are believed to be more likely to confront a problem head on and also are assumed to be more likely to deny that a problem exists. While women are expected to exhibit a more emotional response and are expected to spend more time in discussing problems.

DeRidder (2010) has discussed the complexity in understanding gender differences in coping by addressing the practice of grouping distinct coping behaviors under single coping category. However, the single coping category may be composed of different behaviors. The simplest example is in a study by Rozaro, (1988), where emotion focused coping included behaviors like resignation, denial, anger control, using humor, taking a break, physical activity and socializing while Lazarus (1988) defined emotion focused coping as wishful thinking, distancing, self blame, tension reduction and self isolation. After critically examining such underpinnings in studying coping, a meta-analysis was conducted and it was found that in problem focused coping, women used active coping more than men by engaging in behaviors like seeing social support for instrumental reasons. There was also a trend for women to engage more on general problem focused coping. While in emotion focused coping, women were significantly more likely than men to seek social support for emotional reasons, to use avoidance, to engage in positive reappraisal, to ruminate, to engage in wishful thinking, and to employ positive self talk. Though there were enough significant gender differences in some coping strategies however, the effect size use > 0.15 only for seeking social support, rumination and use of self talk.
Many studies have reported no significant gender differences in Parental Bonding Dimensions.

Rikhye et al. (2008) explored the interplay between the parental bonding and gender effects. The study was done on two groups. The first group comprised of subjects with any history of maltreatment while second group comprised of healthy subjects without history of maltreatment. The Parental Bonding Instrument (PBI; Parker et al., 1979) was administered to assess the parental bonding dimensions. The gender effects were studied separately for two groups. The results revealed that in group with history of maltreatment, males perceived greater maternal care than females while females perceived better paternal care than males. However, in second group of healthy subjects, no gender effects were found in the perception of perceived parental care or overprotection. The researchers added that along with maternal care, it is possible that poor paternal care reflects a variety of stressors in the childhood psychosocial environment whose effects persist into adulthood.

Lian (2009) explored gender differences in perception of parental bonding. It was found that there were significant differences between males and females in parental bonding scores where females showed a better parental bonding compared to males. Gender differences were also explored at sub scale level. For the caring factor, results showed that there was a significant gender difference for both maternal as well as paternal care. The results indicated that females perceived that they received more care from fathers and mothers as compared to males. In terms of overprotection factor for both parents, results showed that there was no significant difference among males and females.

Rozumah and Sheereen (2009) presented a view on gender differences in parental bonding stating that females tend to establish a better relationship with their mothers and fathers as compared to their male counterparts.
Tam and Yeoh (2008) opined that females tend to outscore on all dimensions of parental bonding as females perceive a more positive quality relationship with their parents as compared to males.

Lloyd and Devine (2006) revealed that there are significant gender differences in adolescents in various dimension of parental bonding. However, the researchers attributed this to the parenting styles and the strength of the parent-child relationship. They described that parents tend to practice more positive parenting in females than males. In addition, females are being praised and cuddled more than males; females are also being hit and shouted at less. They further explained that parents tend to have better communication and are more supportive towards their daughters. Likewise, Weiss and Schwarz (1996) showed that parents tend to be less demanding towards the well-being of their daughters compared to their sons.

Yadav (2010) explored gender differences in parental bonding using the Parker parental bonding index. It was found that there were no significant differences on care dimension, however males scored higher than females on dimension of parental overprotection.

Tam, Lee, Kumarasuriar and Har (2012) investigated the relationship between parental authority and parent-child relationship and also explored the differences between males and females in terms of their relationship with their parents. Significant gender differences emerged on all four types of parental authority which includes permissive father, permissive mother, authoritarian father and authoritarian mother. For permissive father, males perceived their father to be warmer, non-controlling and non-demanding as compared to females. For permissive mother, males perceived their mother to be warmer, non-controlling and non-demanding as compared to females. For authoritarian father, males perceived their father to be harsher in disciplining as compared to females. Lastly, for authoritarian mother, males perceived their mother to be harsher in disciplining as compared to females. The analyses also indicated that there were no significant differences between male and female
Zafiropoulou, Avagianou and Vassiliadou (2014) explored gender differences in parental bonding. The results revealed that girls appeared to report more intense affection and empathy on behalf of their mothers, whereas, boys reported much less emotional involvement. The researcher further described that since both mother and daughter belong to the female gender, the creation of a more intimate bond is not only easier but also socially "correct". Boys, on the other end, in an attempt to adapt to social norms, tend to not to accept strong emotional involvement.

Worthen (2014) explored gender differences in parenting bonding and they further explored how gender variations in parent child bond may contribute to future outcomes specially delinquency. The results confirmed the contemporary research findings by showing that female adolescents were significantly more likely to spend time with their parents, and further parents are more likely to monitor females. Results indicated that there was a significant gender difference in the effects of positivity toward parents on delinquency. Positivity toward parents was negatively and significantly related to delinquency for young men; however, although it was in the expected direction, positivity toward parents was not a significant predictor of delinquency among young women. Negativity toward parents increased the likelihood of delinquency for males by 0.08 times and for females by 0.10 times. While some research suggests that the amount of time a child spends with his/her parents can greatly reduce the influence of delinquent peers, the findings from the this study suggested that this relationship may be more significant among females as compared to males.

To conclude, as per literature, there are marked gender differences in perceived parental bonding. There is a body of literature devoted to examining gender differences in personality and various theories are proposed to explain the differences, ranging from evolutionary perspectives to social learning.
theories. The underlying assumption of all of these theories is that there are fundamental, systematic differences between men and women.

Gomez et al (1999) explored gender differences in personality in early adolescence. The ‘Junior Eysenck Personality Questionnaire’ (JEPQ; Eysenck and Eysenck, 1975) was used as a measure of personality. There were no gender differences for the personality variables.

Kardum and Krapic (2001) explored gender differences in Eysenckian personality dimensions. As per the findings of the study gender differences were obtained only on psychoticism (t=4.53; p<0.01) where boys scored higher than girls.

Kaur (2006) explored gender differences on Eysenckian personality dimensions among Indian adolescents. The results revealed that male and female adolescents differed only on one dimension viz. psychoticism in which males scored higher than females.

Lippa (2010) addressed the question ‘How big are gender differences in personality’. The researcher summarized the data from two meta-analyses and three cross-cultural studies on gender differences in personality. Results showed that gender differences in Big Five personality traits were ‘small’ to ‘moderate,’ with the largest differences occurring for agreeableness and neuroticism where women scored higher than men.

Weisberg, Young and Hirsh (2011) investigated gender differences in personality traits, both at the level of the Big Five and at the sublevel of two aspects within each Big Five domain. It was seen that women reported higher Big Five Extraversion, Agreeableness, and Neuroticism scores than men. However, more extensive gender differences were found at the level of the aspects, with significant gender differences appearing in both aspects of every Big Five trait. For Extraversion, Openness, and Conscientiousness, the gender differences were found to diverge at the aspect level, rendering them either small or undetectable at the Big Five level. These findings clarify the
nature of gender differences in personality and highlight the utility of measuring personality at the aspect level.

Giudice, Booth and Irwing (2012) obtained the accurate empirical estimates of gender differences in personality. Multigroup latent variable modeling was used to estimate sex differences on individual personality dimensions, which were then aggregated to yield a multivariate effect size. The researchers found a global effect size $D = 2.71$, corresponding to an overlap of only 10% between the male and female distributions. These results reflected an extremely large difference in personality of males and females.

Vianelloa, Schnabel, Sriramc and Nosek (2013) investigated gender differences in implicit and explicit measures of the Big Five traits of personality. In this high-powered study (N= 14,348), the researchers replicated previous research showing that women report higher levels of Agreeableness, Conscientiousness, Extraversion and Neuroticism. For implicit measures, gender differences were much smaller for all, and opposite in sign for Extraversion. Somewhat higher levels of implicit Neuroticism and Agreeableness were observed in women, and somewhat higher levels of implicit Extraversion and Openness were observed in men. There were no gender differences in implicit Conscientiousness. A possible explanation is that explicit self-concepts partly reflect social norms and self-expectations about gender roles, while implicit self-concepts may mostly reflect self-related experiences.

Laher and Croxford (2013) studied the gender differences in personality using NEO-PI-R (Costa and McCrae, 1992) as an operationalisation of the five factor model (FFM) of personality. Each of the five factors namely Neuroticism, Extraversion, Openness to experience, Conscientiousness and Agreeableness were measured using 48 items domain scale. Each domain further comprised of six facets consisting of 8 items each. The one way ANOVA revealed statistically significant differences among males and females on the scales of neuroticism, anxiety, depression, self-consciousness, vulnerability, warmth, positive emotions, feelings,
agreeableness, straightforwardness, altruism, compliance, tender-mindedness, order and achievement striving and modesty where females scored higher than males. Males scored significantly higher than males on assertiveness and ideas only.

Borkenau, Heriebikova, Kuppens, Realo and Allik (2013) explored gender differences in personality variability by analyzing four datasets comprising self reports and informant report on NEO PI-R (Costa and McCrae, 1992) or NEO PI-3 (McCrae et al., 2005). It was seen that higher male than female variability was found in each sample for informant reports of Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. Women were overrepresented in both tails of the distributions of several personality traits.

Years ago American author and counselor John Gray wrote the best-selling book ‘Men are from Mars, Women are from Venus’. Gray’s simplified thesis suggested common relationship problems between men and women are a result of fundamental differences between the genders. (Gray, 2002) Despite the book’s popular success, the issue of gender differences remains widely debated. On the basis of present research endeavor, one can safely stipulate that gender differences cannot be assured to be so obvious. At best, it suggests further exploration into this field particularly with regard to adolescent resilience.