CHAPTER 2

REVIEW OF RELATED LITERATURE

Research work is carried out, not in isolation, but as a part of a larger body of work. The inspiration to conduct a particular piece of research is born out of reading and reviewing research which has been carried out in one’s broader area of interest. The journey of reading various research articles is like traversing through a maze; some articles pique your interest and lead you to read in greater depth, while others may state the obvious. A review of literature is presented in order to substantiate some of the findings of the present research; and also to highlight the lacunae; which necessitated this piece of research. Research was reviewed by reading several journals such as Journal of Indian Academy of Applied Psychology, Psychological Studies, Indian Psychological Review, Journal of Youth and Adolescence etc. In addition, several articles were accessed through research sites such as: academia.edu, doaj.org, online.sagepub.com, google scholar, articlesfactory.com, apa.org, springerlink.com etc. Articles that were found to be relevant to the current study have been presented here.

The topic of adolescence has always attracted researchers, as this transition period is replete with tremendous changes which could affect the course of an individual’s life. Society too, takes keen interest in this stage, as parents and teachers have greatest difficulty in handling students of this age.

2.1 Studies Related to Adolescent Issues

There has been growing concern about adolescent behaviour, especially with regard to a tendency for them to withdraw from the larger social activities. A review by Li and Wong (2015) summarized and categorized clinical, psychological, familial, and social factors leading to youth social withdrawal behaviors. Family structure and system dynamics factors were found to be important. Extrafamilial factors including the education
Societal values and expectations from young people were also related to youth social withdrawal behavior.

Bowers et al (2014) explored the second decade of life. They concluded that young people should be regarded not as problems to be managed, but instead, as resources to be developed.

Rao et al (2013) examined adolescents' perception of cultural change and identity development during the age of globalization in India. Analyses of data from urban, middle-class, 12–15-year-olds (46% girls), revealed that these youth were aware of changes in their daily lives due to globalization, and evaluated such changes in a practical light of losses, gains, and a need for adaptation. Furthermore, results showed that adolescents remained strongly identified with traditional Indian collectivist beliefs, values, and practices.

Singh (2012) investigated the prevalence of lifestyle related concerns among school adolescents. The data was collected from 1,500 school students from sixth to eleventh grades drawn from rural and urban settings. The students completed an anonymous Adolescent Lifestyle Survey. The results suggest need for immediate attention to promoting health through relevant policies, coordinated efforts among the stakeholders, and initiating culturally appropriate lifestyle interventions among adolescents.

Steinberg (2009) was interested in the use of adolescent neuroscience in the development of public policies affecting young people. He focused on three different issues: (a) what science says about brain development in adolescence; (b) what neuroscience implies for the understanding of adolescent behavior; and (c) what these implications suggest for public policy. The author states that a good deal is known about adolescent brain development, that this knowledge has been useful in shaping our
understanding of adolescent behavior, and that neuroscience, like behavioral science, can usefully inform policy discussions. He cautions, however, that one may be unduly swayed by neuroscience evidence and that such evidence should be presented with special care.

Research led by neuropsychologist Yurgelun-Todd (2007) postulates that adolescent brains process information differently than adult brains. Neuroimaging was used to investigate the neural underpinnings of the emotional turmoil many teens experience. The results of the imaging revealed brain differences that could explain adolescent traits such as impulsivity, poor judgment and social anxiety. “Rebellious teen behavior could stem more from biology than stubbornness”, Yurgelun-Todd.

Steinberg and Morris (2001) wrote about adolescent development in the Annual Review of Psychology. They attempted to identify the most relevant conclusions and ideas about adolescent development that have emerged in the recent past. They believe that although recent research has focused on familiar themes—problem behavior, puberty, parent-adolescent relations, the development of the self, and peer relations—new themes and guiding frameworks have transformed the research landscape. They believed that recent research was more focused on the interplay between genetic and environmental influences on adolescent development.

They commended these shifts in perspective, but lament the lack of research on the psychological development of the individual adolescent. They recommended that an integrative, interdisciplinary work should be the focus of the next decade of research on adolescent development.

Arnett (1999), wrote a comprehensive article on the topic – “Adolescent Storm and Stress, Reconsidered”. Hall's (1904) view that adolescence is a period of heightened "storm and stress" is reconsidered in light of contemporary research. The author provides a
brief history of the storm-and-stress view and examined three key aspects of this view: conflict with parents, mood disruptions, and risk behavior. In all three areas, evidence supports a modified storm-and-stress view that considers individual differences and cultural variations. Not all adolescents experience storm and stress, but storm and stress is more likely during adolescence than at other ages. Adolescent storm and stress tends to be lower in traditional cultures than in the West, but may increase as globalization increases individualism. This particular research is very appealing, as we do observe that the issues of adolescent rebellion are on the rise even in smaller cities in India, with the increase in globalization through the onslaught of western media and its emphasis on individuality.

2.2 Studies Related to Intelligence and Academic Achievement

Academic achievement is defined as knowledge acquired and skills developed in school subjects, generally indicated by marks obtained in tests in an annual examination.

There has been considerable debate raging with regard to the relationship between intelligence and academic achievement. Some researchers view intelligence and achievement as identical constructs. Others opine that the relationship between intelligence and achievement is reciprocal. Still others assert that intelligence is causally related to achievement.

Sharma and Chauhan (2015) conducted a study which revealed that there is positive and significant relationship between academic achievement and intelligence of intellectually gifted students. Further, the study revealed that there is significant gender difference in academic achievement of intellectually gifted students in favour of girls.
Ren et al (2015) provided some insight into how fluid intelligence influences academic performance. A sample of 2,277 secondary school students completed two reasoning tests that were assumed to represent fluid intelligence, and standardized math and verbal tests assessing academic performance. Results indicated that fluid intelligence could be decomposed in such a way that the resulting components showed different properties and contributed differently to the prediction of academic performance. Results also corroborated the influence of intelligence on academic achievement.

Anees (2013) dealt with the identification of the magnitude of the relationship between intelligence and academic achievement of eighth class students. The main findings of the study are that there is a positive correlation between intelligence and academic achievement; and that there is no significant difference between boys and girls with regard to academic achievement.

Sharma et al (2011) undertook an empirical study which examined the relevance of intelligence tests (verbal and non-verbal) in different academic subjects. A sample of 200 students (100 males and 100 females) of eleventh class from different schools of Shimla district were tested on Standard Progressive Matrices (SPM) and General Mental Ability Test (GMAT) along with their scores on different subjects. A multiple regression analysis revealed that SPM has been found to be the best correlate of Mathematics and Science subjects contributing 53% and 58% of variance in males’ sample and 32% and 36% of variance in females’ sample. Whereas, GMAT correlated best with languages and social science subjects accounting for 28% to 44% in males’ sample and 28% to 56% in females’ sample.

Joshi and Srivastava (2009) undertook a study to investigate the self-esteem and academic achievement of urban and rural adolescents; and to examine the gender differences in self-esteem and academic achievement. Significant differences with regard
to academic achievement of rural and urban adolescents were observed. Urban adolescents scored higher in academic achievement tests as compared to rural adolescents. Significant gender differences were found in academic achievement. Girls were significantly higher on academic achievement as compared to boys. Naderi et al (2008) failed to support the generally accepted fact that intelligence and gender are predictors of students’ academic achievement. Their study found that intelligence and gender explains only 0.019 of the variance in academic achievement (CGPAscores). Partial correlations between academic achievement and IQ scores and gender were nonsignificant at .05.

Laidra et al (2007) investigated the predictors of academic achievement using a large sample of 3618 students (1746 boys and 1872 girls) in Estonia. Intelligence, as measured by the Raven’s Standard Progressive Matrices, was found to be the best predictor of students’ grade point average (GPA) in all grades.

Deary et al (2007) found a strong and positive relationship between intelligence and academic achievement. Their study examined the relationship between psychometric intelligence at age 11 and educational achievement in 25 academic subjects at age 16. The correlation coefficient between a latent intelligence trait and a latent trait of educational achievement was 0.81. General intelligence was observed to have contributed to success on all 25 academic subjects.

Trama (2004) conducted a path analytic study of the effect of intelligence, parental involvement, and adolescent boys’ motivational level on academic achievement. Her results revealed that, by and large, motivational variables were stronger predictors of achievement than intelligence.

Wright (2003) conducted a factor analytic and canonical correlational study of the relationship between achievement and intelligence. They tested the assertion that tests of
intelligence and achievement measure identical constructs. They found that 31% to 47% variance could be accounted to functional overlap between the two constructs.

Begum and Phukan (2001) analyzed the relation between academic achievement and intelligence in both boys and girls. Results revealed that the correlation was greater in case of girls as compared to boys.

2.3 Studies Related to Emotional Intelligence and Academic Achievement

Several studies have found that emotional intelligence (EI) has a significant impact on various aspects of our life; research related to academic achievement has been enumerated here.

Unnikrishnan et al (2015) designed a study to assess the association of emotional intelligence (EI) with academic performance among medical students. The Schutte EI test was used for the study. Gender, academic performance and satisfaction with the career choice were found to be statistically significant with EI. They found a significant association between EI and academic performance and concluded that efforts must be made to include the concept of EI into the medical curriculum.

Gharetepeha et al (2015) aimed to investigate the role of emotional intelligence in identifying self-efficacy among students with different levels of academic achievement. Students with high academic achievement were found to score higher in self-efficacy and emotional intelligence variables than students with low academic achievement.

Chamundeshwar (2013) investigated the emotional intelligence and academic achievement of students at the higher secondary level. Using random sampling technique, 321 students, from the higher secondary level in different systems of education, namely, state, matriculation and central board schools were selected. The Emotional Intelligence Scale (Hydes and others, 2002) was used to assess the emotional intelligence of students.
Results revealed a positive and significant correlation between emotional intelligence and academic achievement among the students. Further, the students belonging to the central board schools have a higher level of emotional intelligence compared to students in state board.

Fayambo (2012) investigated the relationship between emotional intelligence and academic achievement among undergraduate students. Findings revealed significant positive correlations between academic achievement and most of the emotional intelligence components. The emotional intelligence components jointly contributed to 48% of the variance in academic achievement. Attending to emotions was the best predictor of academic achievement while positive expressivity, negative expressivity and empathic concern were other significant predictors. Emotion-based decision-making, responsive joy and responsive distress did not make any significant relative contribution to academic achievement, indicating that academic achievement is only partially predicted by emotional intelligence.

Mohzan and Halil (2011) investigated the influence of emotional intelligence on academic achievement among university students. Two domains (Self-Emotion Appraisal and Understanding of Emotion) of emotional intelligence investigated were found to be significantly and positively associated with the respondents’ academic achievement.

Ferrando et al (2010) analyzed the relationship between trait emotional intelligence and academic performance, controlling for the effects of IQ, personality, and self-concept. A sample of 290 preadolescents (11-12 years old) took part in the study. A positive and significant correlation coefficient between trait EI and general academic performance was found.
Ogundokun et al (2010) examined the moderating influence of emotional intelligence, age, and academic motivation, on academic achievement of secondary school students. Results revealed that emotional intelligence has a significant correlation with academic achievement. The study has implications for curriculum developers to integrate emotional intelligence into the school curriculum.

Hassan et al (2009) conducted a study to identify the emotional intelligence levels among school students in rural areas; relationship between emotional intelligence and anxiety; as well as relationship between emotional intelligence and academic achievement. The results showed that there were significant differences in emotional intelligence levels among all students between both genders. Mean score of emotional intelligence within female students appeared to be higher than male students. Emotional intelligence was also significantly positive in correlation with academic achievement of all variables including students’ age and gender.

Huang et al (2009) conducted a study to consider the debate about whether emotional intelligence has incremental validity over and above traditional intelligence dimensions. They hypothesized that emotional intelligence and General Mental Abilities (GMA) differ in predicting academic performance and the quality of social interactions among college students. Using two college student samples, they found support for the idea that EI and GMA each have a unique intelligence power to predict academic performance, and also that GMA is the stronger predictor. However, the results show that EI, but not GMA, is related to the quality of social interactions with peers.

Farooq (2007) found in his research that the students who score high on emotional intelligence; specifically in the areas of interpersonal skills, intrapersonal skills, adaptability, general mood, and stress management skills, tend to have good academic performance as compared to those who score low on these scales. Comparison of both
genders on academic performance revealed no significant differences.

Adeyemo (2007) examined the moderating influence of emotional intelligence on the link between academic self-efficacy and achievement among university students. The participants in the study were 300 undergraduate students at the University of Ibadan, Nigeria. Their age ranged between 16.5 years and 30 years with mean age of 19.4 years. The results demonstrated that emotional intelligence and academic self-efficacy are significantly correlated with academic achievement. The moderating effect of emotional intelligence on the relationship between academic self-efficacy and achievement was also established. On the basis of these findings, it is suggested that emotional intelligence should be integrated into undergraduate curriculum.

Bindu and Thomas (2006) conducted a study in which the findings underscore the fact that cognitive and personality traits interact in complex ways and determine the performance of an individual in most fields of activity. The results of the study imply that one may be able to predict the performance of a person in the cognitive domain (i.e., intelligence and creativity) better if we have additional information regarding his/her non-cognitive domain (e.g., EI and maladjustment). EI had a greater role in determining overall creativity and maladjustment among females than in males. Similarly, IQ and creativity were more closely connected in females than in males.

Parker et al (2004) in their study found that highly successful students scored higher than the unsuccessful group on emotional intelligence. In the same vein, Low and Nelson (2004) reported that emotional intelligence skills are key factors in the academic achievement and test performance of high school and college students respectively.
2.3.1 Studies Related to Emotional Intelligence and Demographic Variables

Carvalho and Colvin (2015) hypothesized that levels of emotional intelligence are associated with levels of income. The relationship between variables associated with academic success were explored using multivariate analysis techniques. The results showed significant direct and/or indirect effects of income level on emotional intelligence and academic success.

Kalapriya and Anuradha (2015) conducted a study on adolescents in Tirupati. They investigated the relationship between gender and emotional intelligence among adolescents. The participants were administered the Emotional Intelligence scale developed by Mangal and Mangal (2004). T–test was used for analysis. The results of the study indicated significant difference between the emotional intelligence of boys and girls.

Kar et al (2014) presented a paper which investigated the relationship between human emotion and intelligence. They studied the emotional intelligence of secondary school students in relation to their gender and residential background. Emotional intelligence was measured by using Mondal’s Emotional Intelligence Inventory (MEII). The results reveal that residential place plays a significant role in the development of emotional intelligence whereas gender does not affect the level of emotional intelligence.

Asmari (2014) investigated the effects of EI on academic achievement of English language undergraduates in Saudi Arabia. It was found that higher EI levels of female undergraduates had positive impact on their performance in English language tests. Females also scored better in EI constructs: intrapersonal, interpersonal, stress management. Accordingly, if EI skills are strengthened and enhanced in students of both genders, they may potentially display better levels of personal and academic achievement.
Lawrence and Deepa (2013) conducted a study in which the objective was to find the relationship between emotional intelligence and academic achievement of high school students with reference to the background variables. The findings reflect that there is no significant difference in EI between the male and female high school students. No significant correlation was found between the emotional intelligence and academic achievement of high school students. Also, no significant correlation was found between emotional intelligence and socio-economic status of high school students.

Shah et al (2011) conducted a study to examine the relationship between emotional intelligence and academic achievement among students of higher secondary schools. Significant relationship was found between the two constructs. The secondary objective was to examine the role of various demographic variables of the students including gender, socio-economic status, parental education, and geographical origin, in emotional intelligence. First born students scored higher on emotional intelligence as compared to later born students. Students with literate parents scored higher as compared to students with illiterate parents. Students from urban areas scored higher as compared to students from rural areas. Students from upper socio-economic students scored higher on emotional intelligence as compared to students from lower socio-economic status. Female students scored higher as compared to male students.

Mathur et al (2005) designed a study to evaluate the gender difference in emotional intelligence and scholastic achievement in school going adolescents. Sample consisted of 83 adolescents (47 girls and 36 boys) in the age group of 13 to 15 years. The results revealed no significant differences in emotional intelligence between boys and girls.

Uma and Uma Devi (2005) examined the relationship between the dimensions of EI and selected personal social variables. The sample comprised of 120 parents and their children between the age range of 15-17 years. The results revealed that among the
personal variables, age was not significantly correlated with emotional intelligence of the adolescent; gender, education of parents and occupation of parents were significantly and positively related with emotional intelligence. Adolescents of joint families were more flexible and adaptable than adolescents of smaller families.

Uma Devi and Rayal (2004) conducted a study on the relationship between adolescents’ perception about family environment and emotional intelligence. Results revealed that four out of eight dimensions of family environment: cohesion, expressiveness, acceptance and caring, and active recreational orientation were positively and significantly related to total emotional intelligence of adolescents.

2.3.2 Studies on Impact of Emotional Intelligence Programs

Casillas et al (2012) examined the differential effects of prior academic achievement, psychosocial, behavioral, demographic, and school context factors on early high school grade point average (GPA). The findings suggest that psychosocial and behavioral factors add incremental validity to the prediction of GPA. When comparing the relative importance of each set of predictors, the variance accounted for by psychosocial and behavioral factors is comparable to that accounted for by prior grades. These findings highlight the importance of non-cognitive factors in academic success and the utility of referring students to intervention programs, and improving academic success.

Bhadouria (2013) determined the factors which affect the development of emotional intelligence and its role in academic achievement. Secondary data was collected; a correlation between emotional intelligence and academic achievement was found. Teaching emotional and social skills at school not only positively influenced academic achievement during the year when these were taught; but also have an impact on long term achievement.
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Jdaitawi et al (2011) examined the influence of emotional intelligence training on increasing social and academic adjustment among first year university students in North Jordan. The results of the study indicate significant mean differences between the two groups having emotional intelligence as a variable. The researchers have recommended that emotional intelligence training should be utilized as an intervention in improving social and academic adjustment among adolescents and adult students.

Alegre (2011) reviewed the scarce research literature in the area of children’s emotional intelligence. He also reviewed the way in which parenting styles and practices predict children’s emotional intelligence. Based on the parenting literature, four main dimensions of parenting are identified that are relevant to the study of emotional intelligence: parental responsiveness, parental positive demandingness, parental negative demandingness, and parental emotion-related coaching. Parental responsiveness, parental emotion-related coaching, and parental positive demandingness are found to be related to children’s higher emotional intelligence, while parental negative demandingness is related to children’s lower emotional intelligence. Additionally, social-emotional intervention programs used in schools have succeeded in improving children’s emotional skills.

2.4 Studies Related to Social Intelligence and Academic Achievement

Social relations between students and their peers have not been studied extensively in scientific literature, and studies have rarely focused on the association between these relations and school achievement.

Nazir et al (2015) conducted a study to compare rural and urban college students on various dimensions of social intelligence and academic achievement. The study was conducted on a sample of 390 college students from Srinagar. The tools used in the study were Chaddha and Ganesan’s Social Intelligence Scale (1986); the average marks
percentage obtained by the subjects in their first and second year examinations was used as the measure of academic achievement. The analysis of the data revealed that urban college students when compared with rural college students were found to have higher social intelligence and also higher academic achievement.

Pinto et al (2014) conducted a study aiming to present Portuguese adolescents’ perceptions about their social intelligence and to analyze and discuss the differences between groups according to their school grade. Results indicated low levels of perception of social intelligence; indicating a need to initiate programs which would help them improve their social intelligence.

Saxena and Jain (2013) conducted a study to find out the social intelligence of male and female undergraduate students from colleges of Bhilai city, Chhattisgarh. The data was collected by using Chadda and Ganesan’s Social Intelligence Scale. The findings indicate that female students possess more social intelligence than male students; and that arts students have greater social intelligence than students of other streams.

Durlak et al (2011) presented findings from a meta-analysis of 213 school-based, universal social and emotional learning (SEL) programs. Compared to controls, SEL participants demonstrated significantly improved social and emotional skills, attitudes, behavior, and academic performance that reflected an 11-percentile-point gain in achievement. The findings support the empirical evidence regarding the positive impact of SEL programs. Policy makers, educators, and the public can contribute to the holistic development of children by supporting the incorporation of evidence-based SEL programmes into standard educational practice.
Tanakinci (2010) conducted a study which assessed students’ social intelligence; and its relationship with academic achievement. According to the results, a weak relationship \( (r < .40) \) was revealed between social intelligence and academic achievement.

Vera (2009) conducted a study which compared the nature of social relations and school achievement at different ages. The factors in multiple logistic regression which determined the school achievement of fifth-graders to the largest extent were their acceptance, parents’ characteristics (educational level and employment) and social adaptation. When it comes to eighth-grade students, educational level of parents and social adaptation are directly correlated with school success.

Stevan (2002) reviewed empirical findings which showed that there is bi-directional influence between peer relationships and academic achievement. For example, socially accepted children exhibiting prosocial, cooperative and responsible forms of behavior in school most frequently have high academic achievement. On the other hand, children rejected by their peers often have lower academic achievement and tend towards delinquency, absenteeism and dropping out of school. These behavioral and interpersonal forms of competence are frequently more reliable predictors of academic achievement than intellectual abilities are.

Meijis et al (2002) compared the effects of social intelligence and cognitive intelligence on adolescent social popularity. Participants were adolescents (56% girls, 44% boys) in vocational and college preparatory schools in Northwestern Europe. Perceived popularity was significantly related to social intelligence, but not to academic achievement. Sociometric popularity was predicted by an interaction between academic achievement and social intelligence, further qualified by school context.
Vittorio et al (2000) undertook a longitudinal research which demonstrated the contribution of early prosocial behavior to children’s development in academic and social domains. Both, prosocial and aggressive behaviors, in early childhood, were tested as predictors of academic achievement and peer relations in adolescence five years later. Prosocialness included cooperating, helping, sharing, and consoling, and the measure of antisocial aspects included a tendency towards verbal and physical aggression. Prosocialness had a strong positive impact on later academic achievement and social preferences, but early aggression had no significant effect on either outcome.

2.5 Studies Related to Perceived Parental Relationship and Academic Achievement

Leung and Shek (2014) attempted to study the relationship between parent–adolescent discrepancies in perceptions of parenting characteristics and adolescent psychosocial development in Chinese families experiencing economic disadvantage. It was found that parents and adolescents differed in their perceptions of parenting behaviors, with adolescents showing less positive perceptions of parenting behaviors than did their parents. The findings also revealed that higher parent–adolescent discrepancies in parenting characteristics were generally related to lower achievement motivation.

Amy Chua (2013) introduced the concept of tiger mothers – those mothers who are highly controlling and authoritarian and demand unquestioning obedience with little to no concern for the child’s needs, wishes, or emotional well-being to drive their children to high levels of success at any cost. Kim et al (2013) found in their eight-year longitudinal study that adolescents of tiger parents were more likely than those with supportive or easygoing parents to feel more alienated from their parents, report greater depressive symptoms, and, in contrast to the stereotype of high achievement, report lower GPAs. So, while tiger parenting has received much attention, recent research suggests that children of
tiger parents are not necessarily the highest achieving, resilient, and well-adjusted children.

Khan et al (2012) investigated the effects of perceived teacher acceptance as well as perceived maternal and paternal acceptance on the academic achievement and school conduct of adolescents in the Mississippi Delta region of the United States. Results revealed that perceived maternal acceptance (but not paternal acceptance) correlated with boys’ GPA. Neither maternal nor paternal acceptance, however, was correlated with girls’ academic achievement.

Swanson et al (2011) examined ego resilience and engagement coping as mediators of the relationship between supportive and controlling parenting practices and early adolescents’ academic achievement, social competence, and physical health. Participants were 240 predominantly Mexican American early adolescents, their parents, and their teachers. Supportive parenting was observed to be positively related to engagement coping, which in turn was positively related to achievement and health.

Pong et al (2009) examined the relationship between parenting and school performance among Asian students. They found that authoritarian parenting is negatively associated with children’s school achievement, while authoritative parenting is positively associated. This result for Taiwanese Chinese students is similar to previous results for European-American students in the US.

Dotterer et al. (2008) examined the reciprocal associations between parent-adolescent conflict and academic achievement over a two year period. Participants were mothers, fathers, and adolescents from predominantly White, working, middle class families (N = 168). Parent-adolescent conflict was found to predict relative declines in academic achievement two years later.
Lakshmi and Arora (2006) conducted a study to investigate the perceived parental behaviour and its relationship with academic school success and academic competence. The sample comprised of 500 high school students (250 male and 250 female). Results of the study revealed that parental acceptance and encouragement scores were positively related with academic school success and academic competence scores. However, parental control (psychological and behavioral) had a negative relationship with academic success and competence. Parents who were perceived as being more accepting and using less restrictive and hostile psychological control tended to raise adolescents with higher academic success and competence.

Supple et al (2006) used a community-wide survey of adolescents to compare adolescent perceptions of parental support, knowledge, and authoritative decision making in samples of Hmong and European Americans. Additional analyses considered variation in parental influence on adolescent outcomes across these groups. The results reveal that parental support and knowledge were associated with higher self-esteem and grade point average.

Assadi et al (2006) attempted to examine the influence of socio-cultural context on parenting style, academic achievement, and learning style in the city of Tehran. In a descriptive cross-sectional study, 240 eighth grade students (120 males, 120 females) were selected using cluster multistage sampling. To assess the socio-cultural background, four demographic factors including place of residence, number of children, parents’ place of birth, and parents’ education was used. Academic achievement was assessed using the grade average of final exams. There was positive and significant correlation between authoritative parenting style and higher academic grades.

Mohanraj and Latha (2005) aimed to investigate the relationship between perceived family environment, home adjustment, and academic achievement in
adolescents. Family environment appeared to influence home adjustment as well as academic performance. The majority of the sample perceived their family as cohesive, organized, achievement oriented and emphasizing on moral – religious issue with minimal conflict. Academic performance was significantly related to independence and conflict domains of family environment.

Attaway et al (2004) studied the relationship between maternal beliefs in control and adolescent academic achievement by interviewing Black mothers and female guardians of adolescents, ages 11 to 19. Demographic variables such as maternal education level and adolescent gender were also examined to determine whether they helped explain variation in adolescent grade point averages. The analyses revealed that higher maternal beliefs in control were significantly associated with lower grade point averages.

Bean et al (2004) examined the relationship between adolescent functioning (i.e., self-esteem and academic achievement) and parental support, behavioral control, and psychological control in European American and African American adolescents. Results indicated that supportive behavior of African American mothers toward their adolescent children positively predicted both self-esteem and academic achievement.

Kang and Sibia’s (1997) comparative study on parent child relationships of high and low achievers revealed that high achievers shared a better relationship with their parents as compared to low achievers. The study was carried out in schools of 100 high and 100 low achieving children in the age group of 6-8 year olds and their parents.

Magen (1994) carried out a series of exploratory studies which examined children’s perceptions of good parenting, focusing specifically on adolescents, through an open-ended question “What is a good parent?”. The findings revealed discrepancies
between parents and their adolescent children in several content areas. These findings were obtained regardless of gender, SES group, or ecological condition. Parent-adolescent discrepancies evidenced in this study may help in clarifying the appropriate targets for family intervention programs aimed at fostering more effective channels of communication between adolescents and their parents.

2.6 Studies Related to Demographic Variables and Academic Achievement

Many years of research has shown that students from low-income families tend to lag behind wealthier students in terms of academic success. A recent study (2015) led by researchers at MIT and Harvard University; imaged the brains of students from high- and low-income families, and found that the students who came from high income families had thicker brain cortex in areas associated with visual perception and knowledge accumulation. Furthermore, these differences also correlated with a measure of academic achievement — performance on standardized tests. Those differences correlated to differences in both test scores and family income. Differences in cortical thickness in these brain regions could explain as much as 44 percent of the income achievement gap found in this study.

“Just as you would expect, there’s a real cost to not living in a supportive environment. We can see it not only in test scores, in educational attainment, but within the brains of these children”, says Gabrieli, one of the study’s authors. “To me, it’s a call to action. You want to boost the opportunities for those for whom it doesn’t come easily in their environment.” The researchers point out that the structural differences they found are not necessarily permanent.

Voyer and Voyer (2014) conducted a meta analysis to study the impact of gender on academic achievement across all the phases of a students life from primary school to
university studies. Results demonstrated the presence of a stable female advantage in school marks.

Hines and McCoy (2013) examined the parental characteristics, ecological factors, and the academic achievement of African American, male, high school students. Results indicated that fathers’ education level and two-parent family structures are positive predictors of grade point average (GPA), and fathers’ expectations is a negative predictor of GPA.

Carneiro et al (2012) studied the intergenerational effects of maternal education on children’s cognitive achievement, behavioral problems, grade repetition, and obesity, using matched data from the female participants of the National Longitudinal Survey of Youth 1979 (NLSY79) and their children. Their results show substantial intergenerational returns to education. Their data set allowed them to study a large array of channels which could transmit the effect of maternal education to the child, including family environment and parental investments at different ages of the child.

Saifi et al (2011) researched the effects of socioeconomic status on students’ academic achievement. A family's socioeconomic status is based on family income, parental education level, parental occupation, and social status in the community. Results obtained reveal that stable socioeconomic status of a family brings comfort, positive attitude, and a healthy environment, which leads to high academic achievement. It is also concluded that parent’s education plays a significant role in the educational attainment of their children.

Youseffi et al (2010) wrote a paper to determine the effect of family income on test-anxiety and academic achievement. The paper is based on a study which was carried out among high school students in Iran. The respondents of the study were 400 high
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School students (200 males and 200 females) in the age range of 15-19 years old. ANOVA was used to identify the significant differences between family income, test-anxiety, and academic achievement. The finding shows that family income significantly affected academic achievement.

Gibb et al (2008) studied gender differences in educational achievement in a cohort of 14265 individuals studies from birth to age 25. There was a small but pervasive tendency for females to score better than males on standardized tests, and to achieve higher school and post-school qualifications.

Avan et al (2007) used multivariate linear regression models to determine the effect of family configuration on the academic scores of children. Their results revealed that family configuration variables such as number of co-residents (p < 0.05) and the number of siblings (p < 0.01) in the house were significantly correlated with academic scores. Even after controlling for gender, socio-economic status, birth order and birth intervals, significant differentials were observed in favor of a joint family system on a child's intellectual development. They concluded that there is a positive role of a joint family on the intellectual development of children.

Contradictory to the above research, Maralani (2004) found that family size did not provide the evidence of any causal effect on the educational attainment of Indonesian children. His study noted a flat relationship between family size and educational attainment of children.

Anh et al (1998) believe that the impact of family size on educational outcomes vary according to specific culture, political system, and socioeconomic setting of the country.
Yu and Su (2005) stated: “We argue that in a time when the variation of family size is large, family resources are restricted, and educational opportunities are not equal and widespread, parameters of sibling structures, including sibship size, gender composition, and birth order, would have particular relevance to individual educational attainment”. This resource dilution hypothesis does hold true in the context of Indian families.

Ogweno et al (2014) carried out a study with the objective of determining the influence of family characteristics (family income, family size and family level of education) on the students’ academic performance. Co-relational design was used during the study and stratified sampling was used to select schools for the study. The study found a positive correlation between level of education of the mother and students’ performance. Furthermore, multiple regression results on family characteristics found no significant influence of family characteristics on students’ performance.

Pishghadam and Zabihi (2011) studied the relationship between social and cultural capital and academic achievement. Through regression analysis, the researchers found out that literacy and cultural competence were predictive of higher GPA. The researchers then entered parents’ educational levels into the regression model. The results of the analysis indicated that, together with literacy, mother’s educational level predicted 23% of the variances in learners’ GPA. However, father’s educational level was not a good predictor of academic achievement.

Sirin (2005) conducted a meta-analysis which reviewed the literature on socioeconomic status (SES) and academic achievement in journal articles published between 1990 and 2000. The sample included 101,157 students, 6,871 schools, and 128 school districts gathered from 74 independent samples. The results showed a medium to strong SES–achievement relation.
Yu and Su (2005) found a positive effect of working mothers’ on their daughters’ education in Taiwan. Father’s and mother’s education was found to be positively related to educational attainment levels of children in Pakistan (Sawada and Lokshin, 2001). They believe that the educated parents have superior home teaching environment and are in better position to perceive the benefits of education.

A perusal of the above studies reveals that we are headed in the direction of investigating the role of non-cognitive factors in the academic achievement of adolescents. However, there is a dearth of comparative studies of high and low academic achievers, wherein the role of the various psychological variables are studied alongside the impact of demographic variables on academic achievement. Hence, the present study has been undertaken as an endeavor in this direction.