CHAPTER 5
DISCUSSION

The present empirical research titled studied “The Effect of Perceived Loneliness on Achievement Motivation, Self-Esteem and Locus of Control Among Adolescents”. The study included four psychological tests namely, Perceived Loneliness Scale, Deo-Mohan Achievement Scale (n-Arch) Coopersmith Self-Esteem Inventory and Levenson’s Locus of Control Scale (Indian adaptation). The scales were administered on a sample of 300 school going adolescents comprising of 150 boys and 150 girls belonging to Delhi and National Capital Region.

Adolescence is a period of transition from childhood towards adulthood. It is widely comprehended as vulnerable stage in an individual’s life. This phase is characterized by rapid physical, developmental, social and psychological chances in growth of an individual. In the Indian context, Verma & Saraswathi (2002) describe that the ancient text of Dharma Shastra identified the critical nature of adolescence and prescribed certain codes for its conduct. The codes described in the ancient text are deeply rooted in the Indian culture and continue to influence practices towards adolescent in a strong manner. Therefore, the influences of society, and family on adolescents in Indian context is different compared to Western culture. For example, middle-class parents spend a significant amount of time supervising their adolescent children where as that is not the case in Western culture. Adolescents are sometimes under substantial pressure to do well under strict supervision (Larson et al., 2002). In the present study focuses on understanding how is an adolescent’s perception of loneliness, gender, and family variables affect his or her personality factors such as self-esteem, achievement motivation, and influence of internal or external causes (locus of control) on behavioural outcomes. The result of the present study describes how loneliness is an important factor in adolescence and how the perceptions of adolescents can affect them adversely. The results of the present study are categorized according to the analysis used. Results for the socio-demographic variables are described separately for all the variables.
5.1 Perceived Loneliness and Other Variables

5.1.1 Correlation matrix.

Many previous researches have described that being lonely is a painful experience (Jaremka et al., 2014; Peplau & Perlman, 1982). Perceived loneliness could be defined as perceived absence of a satisfying social relationship, accompanied by symptoms of psychological distress that are related to actual or perceived absence of the relationship (Young, 1982). Tella (2007) defined achievement motivation as self determination to succeed in whatever activities one engages in e.g. academic work, professional work, sporting events, etc. The study revealed that there is a relationship between perceived loneliness and achievement motivation. A significant negative correlation (-.23) was found between the two variables. The findings indicate that if perceived loneliness increases then achievement motivation decreases. Though there are not similar studies as per the present research but quite related studies are available such as a study conducted by Yan, (2016) reported that achievement motivation is negatively correlated with loneliness., Stoliker and Lafreniere (2015) indicated that feeling of loneliness negatively influenced students overall academic experience. Another study done by Yun (2012) concluded that there is a significant relationship between loneliness and academic achievement. Guay et al (1999) also found that children's quality of social relationship in the peer group can foster the feeling of loneliness which in turn affects children's perception of academic competence. Similarly, study done by Demir and Tarhan’s (2001) revealed that there is a significant relationship between loneliness and academic achievement, thus indicating that if the level of loneliness increases there is a decrease in academic achievement.

Self-esteem is an important personality construct and directly affects an individual’s feeling of loneliness (Jong-Gierveld, 1987). Self-esteem is how one values oneself, how one perceives their value in the world, and how valuable one thinks one is to others. Analysis of the present research revealed that there exists a significant relationship between Perceived Loneliness and Self-Esteem. The correlation between two variables has been found to be negative (-.51). This finding indicates that if Perceived Loneliness increases then Self-Esteem decreases. Along similar lines (Thoresen, 2015; & Yilmaz et al., 2013) stated that there is a significant negative correlation between loneliness and self-esteem. McWhirter (1997) concluded that there is a correlation between low
self-esteem and loneliness. Levin and Stokes (1986) indicated that loneliness is strongly correlated with low self-esteem.

Loneliness and locus of control are both very important personality constructs and are known to be well related. Gatz and Karel, (1993) explained locus of control as a psychological concept capturing an individual’s belief about the extent to which he or she control the events that affects them. According to them people with external locus of control generally attribute life’s outcome to external factors while those with an internal locus of control believe that much of what happens in life stem from their own actions. Results of the present research revealed that there is a relationship between perceived loneliness and locus of control which includes both External factors such as Powerful Others and Change Control, and Internal factors such as Individual Control. The analysis revealed that there is a positive significant correlation (.37 and .32) between perceived loneliness and powerful others and chance control factors of locus of control. This indicates that if perception of loneliness increases in an individual then the tendency to believe that their behaviour outcomes are controlled by powerful others, chance or fate also increases. Although research in this area is very limited, but some studies such as (Anderson, 1999; Metalsky, Joiner, Hardin & Abramson, 1993) suggest that a maladaptive attribution style is significantly associated with loneliness. Marangoni and Ickes (1989) indicated that external locus of control is associated with the experience of loneliness. Another study done by Anderson et al (1994) examined the relation between circumstantial attributions i.e. external circumstances and loneliness. It was concluded that these external attributions are positively related to loneliness. Also Mikulincer and Segal (1991) concluded that loneliness was related to lower desire for intimacy among people who had external expectancies of control.

The research also provides that perceived loneliness and individual control (internal factor) locus of control have a significant negative correlation (-.22). This indicates that if an adolescent has high perceived loneliness then he will have a low inclination to conclude that his life outcomes are due to the results of his own hard work or effort. The research conducted on these variables is scarce but Laine (1998) suggested that students with high loneliness level mostly attribute negative events to internal causes. A study done by Upmanyu, Upmanyu and Dhingra (1992) indicated that loneliness was negatively correlated with internal locus of control. Similarly, Solano (1987) also suggested that loneliness was related with uncontrollable internal attributions. On the
contrary, study conducted by Bulus (2000) stated that if level of locus of control increases then loneliness also increases. It also stated that level of loneliness of students with internal locus of control was lower than students who had external locus of control.

5.1.2 ANOVA analysis.

The results indicate that there is a significant difference in self-esteem for adolescents with high perceived loneliness and adolescents with low perceived loneliness. According to mean score (Table 10), it can be observed that adolescents with high level of perceived loneliness were found to have low self-esteem as compared to adolescents with low perceived loneliness. Similar studies conducted by Ernst & Cacioppo (1999) revealed that people who feel lonely reported shyness and low self-esteem. Another study conducted by Cacioppo et al. (2006) found that there is a significant association between loneliness and self-esteem. Peplau et al. (1982) also reported that loneliness may lower a person’s self-esteem.

The findings of the current study also indicated that there is a significant difference in achievement motivation for adolescents with high and low perceived loneliness. According to mean scores, it was demonstrated that adolescents with high perceived loneliness were found to have low achievement motivation as compared to adolescents with low perceived loneliness (as mentioned in Table 10). A relationship was found between achievement motivation and academic achievement (Awan, Noureen & Naz, 2011; Bakar, Tarmizi & Ayub, 2010). Although similar studies were not found but some studies such as Lu & Zhou, 2013; Anderson Horowitz & French, 1983 reported that people high on loneliness are expected to show poorer academic performance as compared to adolescents with low loneliness, whereas children with higher loneliness levels have poorer academic achievement.

The results clearly indicate that there is a significant difference in powerful others and chance control factor of locus of control in adolescents with high perceived loneliness and low perceived loneliness. Mean scores stated that adolescents with high perceived loneliness had high powerful others and chance control factor of locus of control as compared to adolescents with low perceived loneliness (as mentioned in Table 10). Research conducted by Marangoni and Iekis (1989) indicated that external locus of control is associated with experience of loneliness. Similar studies such as (Diamant &
Windholz, 1981; Stokes, 1985) reported that loneliness is positively associated with an external locus of control.

The findings of the empirical study also suggested that there is a significant difference in individual control (internal factor) dimension of locus of control in adolescents with high and low perceived loneliness. Mean scores stated that adolescents with high perceived loneliness had low individual control locus of control as compared to adolescents with low perceived loneliness (as mentioned in Table 10). Study conducted by Tiwari (2016) suggested that loneliness can be due to certain personality factors such as locus of control, and stated that these two variables are associated with each other. Although the research in this area is limited, some related studies such as Lefourt (1982) stated that individuals who are low on internal locus of control tend to assume that they cannot change themselves or their circumstances so they perceive themselves as socially isolated and consider themselves as lonely. It also suggests that a maladaptive attributional style may decrease one’s motivation to initiate contact and produce social connection and hence leads to experiencing loneliness. Russell, Peplau & Cutrona (1980) found that the loneliness of a person would be deeper who blames himself rather than evaluating the situations and processes outside of himself would be deeper.

5.1.3 MANOVA analysis.

A multivariate analysis of variance was employed containing perceived loneliness, gender and family type as independent variables and self-esteem, achievement motivation and powerful others, chance control, individual control dimensions of locus of control as dependent variables. The results showed a statistically significant multivariate effect for the independent variables of the study.

a) Main Effects.

The findings are in support with the results of previous studies (Rokach, 2013) which stated that MANOVA yielded significant main effects for gender, loneliness, and family. Another study conducted by Wang, Fink & Cai (2008) confirmed that gender interacted with family type and chronic loneliness.
b) Effect of Perceived Loneliness on self-esteem, Achievement motivation and Factors of Locus of control.

MANOVA demonstrated that perceived loneliness had a statistically significant effect on self-esteem, achievement motivation and powerful others, chance control, individual control dimensions of locus of control. However, perceived loneliness did not affect individual control dimension of locus of control. It was also revealed that no interaction effects were found between the combination of independent variables (perceived loneliness, gender, family type) and dependent variables (self-esteem, achievement motivation, Powerful others, chance control and individual factor of Locus of control).

Although not many similar studies were found to support the current findings but studies conducted by (Cacioppo, Hawkley & Ernst, 2006) stated that feeling of loneliness not only increases depressive symptoms but diminishes self-esteem. The self-enforced loneliness loops bring along feeling of hostility and low self-esteem. Another study by Vanhalst et al. (2013) concluded that self-esteem and loneliness influenced each other in a mutual manner. Psychologists in previous studies have empirically established links between loneliness and personality factors such as low self-esteem.

There are very less studies in support of the current findings but a study conducted by (Stoliker & Lafreniere, 2015) indicated that feeling of loneliness negatively influenced students overall academic experience. Tsige (2001) explained that loneliness contributes as a potential factor that affects students’ academic achievement. Studies conducted by (Yan, 2016) indicated that achievement motivation and feelings of loneliness are concepts which are closely related to each other. An article by Enayati (2012) described that how feeling of isolation, low social status in peers and experiencing loneliness can diminish and destroy one’s subjective sense of wellbeing as well as one’s intellectual achievement.

Previous studies revealed that external locus of control has an interaction effect with loneliness. If external locus of control increases, loneliness also increases (Parija & Shukla, 2013). Studies conducted by (Snodgrass, 1987; Qualter & Munn, 2002) suggested that lonely adults and children are more prone to make self-derogatory attributions as compared to non-lonely people. Another study conducted by Crick & Ladd (1993) demonstrated that children with high loneliness due to rejection were more
likely to attribute failure to external causes.

Possible reasoning for the above results could be that individuals who perceive themselves to be lonely often feel that they are devoid of desired social relation with their peers and tend to develop a poor self-concept. Due to this tendency they consider themselves as unloved and incompetent. Such a feeling in turn gives rise to a poor sense of self-esteem. This may cause people to interpret social interactions in a negative manner. Goswick and Jones (1981) concluded that there is a positive relationship between loneliness and poor self-concept. Another study done by Davis, et al. (1992) also confirms that loneliness and self-esteem are related to each other. Nurmi, Toivonen, Salmela and Eronen (1996) suggested that individuals who are lonely are perceived less popular according to other classmates. A persons discontent with their social environment may create even a larger discontentment with oneself as an individual, thus resulting in lowering their self-esteem (Vanhalst et al, 2013). The stigma which is associated with loneliness may cultivate a feeling of failure in an individual. Specially in adolescent, which is a period during which individuals outline their social encounters and are concerned about their social standing (Pankhurst & Hapmeyer, 1999). Therefore, lonely adolescents may develop a feeling of failing a crucial social task (Larson, 1999) and hence damage their self-esteem. The above studies indicate that lonely individuals may find it difficult to form relationship, even if they are in contact with their peer group leading to low self-esteem.

Lonely individuals lack desired social surroundings which affects their desire to achieve in life. The above statement is supported by the research done by Bartlett (2002) which stated that lonely individuals are depressed and lack clear purpose or meaning in life which results in a feeling of inadequacy, which in turn leads to low level of academic achievement. It can also be said that people who feel isolated report greater anxiety, frustration and sadness during academic engagement that directly affects their academic performance, Furrer and Skinner (2003). Individuals who think that they are lonely tend to be self-critical and absorbed in unhappiness which reduce their achievement motivation.

Adolescents high on loneliness feel that they are socially undesirable. Their perceptions and social responses stem from the interpretations that they make of their interpersonal situations. So, they tend to explain the behaviour and thoughts of peers according to their perception and attribution style. Study conducted by Shen (2005) stated that 122
loneliness and attributional styles are interrelated. Jones (1982) also indicated that self-disclosure account of people who are lonely tend to be inappropriate. The effect of those interpersonal deficit includes the tendency to be cynical, feel pessimistic about life and have an external locus of control.

Individuals who are lonely feel that their inadequate relationship with their peers is due to lack of personal abilities and this tendency may lead them to have low expectations for their future social endeavours. Such kind of results could be due to adolescents inadequate social and home environment. Lonely individuals often blame themselves for their circumstances due to which they have a low self-image. Toner and Heaven (2005) suggested that youngsters who attribute peer related events to stable and global factors are more likely to report greater levels of loneliness. When an individual holds himself or herself accountable for lacking desired social connection for prolonged period, they tend to take less incentive to improve their connections which lead them towards loneliness. Asher, Parkhurst, Hymel and William, (1990) stated that individuals who are distressed exhibit non-self-serving bias as they attribute their failure to themselves and ignore the credit for their success. The development of the above mentioned attributes and perceptions in lonely adolescent is an indication of low levels of internal locus of control.

5.2 Different Socio-Demographic Variables

5.2.1 Gender.

Gender is an important variable to study, as different variables impact the emotions and feeling of both boys and girls differently. Both the genders have different personality traits and behave in a different manner.

a) Gender and perceived loneliness, self-esteem, achievement motivation and factor of locus of control (Mean Scores).

Result indicated that boys had high perceived loneliness than girls. Similar studies such as (Muthreja & Sharma, 2013; Deniz, Hamarta & Ani, 2005; Hawkley et al. 2008) stated that men had higher loneliness than females. There are some studies (Victor & Yang, 2012; Page and Cole, 1991) that demonstrated that females were found higher on loneliness as compared to males. Further, some studies indicated that there is no significant difference between perceived loneliness of males and females (Al-Kfaween, 2010; Knox, Vail – Simth & Zusman, 2007).
Results also show that males have a higher belief that chance and power others (external factors) contribute to the outcomes of their behavior. Aligning to the present results Majzub, Marawn, Tallaq, Ishak & Rahman (2015) stated that males have higher external locus of control than females. Another study by Subhashrao (2014) demonstrated that boys have more external locus than girls. On the contrary, some studies (Tong & Won, 2006; Wehmeyer, 1993) reported that female students have more external locus of control than males.

Data analysis also demonstrated that girls have a higher self-esteem and achievement motivation than boys. Studies done by (Saunders, Davis, Williams & Williams, 2004) stated that African-American girls have a higher self-esteem than boys. Another study by Kindlon (2006) demonstrated that girls have higher self-esteem than boys. On the other hand, some studies (Breidon et al 2015, Uatman & Watson, 2000) indicated that males had higher self-esteem as compared to females. Similar studies (Hotulainen & Shofield, 2003, Marsh et al, 2008) supported the above findings that girls relatively have a higher achievement motivation than boys.

It was also demonstrated through this study that girls are more internal than boys. Aligning with the above results, Manger and Eikeland (2000) reported that girls scored significantly higher than boys on internal locus of control.

b) Regression analysis for gender.

The result of the study revealed that self-esteem, achievement motivation, powerful others, chance control (external dimensions) & individual control (internal dimension) were predicted by perceived loneliness in girls whereas only self-esteem and powerful others chance control (external dimension) of locus of control was predicted by perceived loneliness in boys.

The study showed that perceived loneliness explained 23% and 28% of variance in predicting self-esteem in boys and girls, respectively. Aligning with the above results, Heinrich & Gullone, (2006) reported that loneliness significantly predicts poor quality peer interaction, negative self-concept and low self-esteem. On the contrary, studies (Khatib, 2012; McWhiter, 1997; Olmstead et al., 1991) depicted that self-esteem predicted loneliness in adolescents. As both the concept impact the wellbeing of individual, some studies suggested that self-esteem and loneliness affect each other in reciprocal manner (Vanhalst, 2012).
Data analysis revealed that perceived loneliness explained 8% of variance in predicting achievement motivation in girls but it did not predict achievement motivation in boys. Though there are not many studies in this area of research, some researches such as (Zarci, Heydari, & Adli, 2013; Kochenderfer & Ladd, 1996) stated that loneliness predicted academic achievement. Further, there are studies which show how academic achievement and achievement motivation as concepts are related to each other (Awan, Noureen & Naz 2011, Tamannaifar & Gandomi, 2011).

The results also showed that perceived loneliness explained 8% and 21% of variance in predicting powerful others and chance control factor of locus of control in boys, and 5% and 15% variance of powerful others and chance control factor of locus of control in girls. Although not many studies are available in this area, but some studies such as (Solano, 1989; Weiss, 1982) suggest that loneliness in men was associated with low desire for an internal locus of control. No studies were found regarding the present findings i.e. loneliness in women predicted external locus of control (powerful others & Chance control).

In this regard some contradictory studies (Newall et al, 2009) reported that external expectancies in an individual predicted loneliness. This indicates that individuals who perceive that they are lonely are more likely to view their circumstances and their success to be caused by unstable factors which are out of their control (Reis & Sprecher, 2009). Stobber, (2002) found that loneliness stems from self-pity, but research suggested that self-pity was highly related to external locus of control.

The research also showed that perceived loneliness in girls accounted for 8% variance in predicting individual control factor of locus of control, but it did not predict individual control (internal factor) for boys. Though similar studies were not found between the above two variables above, but studies conducted by (Brennan, 1982; Medona & Woodward, 1986) stated that loneliness in women was associated with a deep need for internal locus of control. On the contrary, Ugokwe-Ossai, Ucheagwu & Valentine, (2014) stated that locus of control is a moderate predictor of real isolation and perceived relationship. This may indicate that individuals who feel lonely tend to blame themselves for their failure, but this can be because they perceive themselves of being socially incompetent. The reasoning for explanation could be that lonely
individual may have poor perceptions of their social competency because they tend to focus on the negative social information (Brown & Prinstein, 2011).

c) MANOVA analysis for gender.

From the current study it was observed that gender had a significant effect on self-esteem, achievement motivation and powerful others, chance control, individual control factors of locus of control. The findings were consistent with previous studies (Macano, Ninot & Biland, 2004; Bleidorn, et al. 2015; Quatman & Watson, 2001) reported that gender had a significant effect on the self-esteem of adolescents.

On the other hand, findings of the present study are not similar with previous studies such as (Bordens, 1995; Tam et al, 2011; Munford, 1994) which stated that gender did not affect or interact with self-esteem.

The inconsistency between the findings and the literature can be due to different socio-demographics involved in the studies. It could be that self-esteem could have been measured in different manner, i.e., by taking as whole or component wise. The gap can be because of different current background and family structure.

Similar studies were found that support our current findings such as compiled by Rouse & Austin (2002) stating that academic performance and motivation differed significantly based on gender. Studies conducted by (Clark, 2010; Linenbrink & Pintrich, 2002; Wigfield & Eccles, 2002) reported that achievement motivation differs significantly for males and females.

On the other hand, some studies (Assefa, 1988; Mustofa, 2006; Adsul & Kamble, 2008) that are inconsistent with current findings reported that there is no significant difference between achievement motivation for males and females. Other studies like (Mulugeta, 1998; Negasi, 2009) stated that males have higher achievement motivation than girls.

Previous research studies report a very inconsistent pattern. The reason for such inconsistency can be difference in education level, teaching pattern and how student grasp the knowledge they are being provided.

The previous studies compiled for the gender and external/internal locus of control (powerful others, chance control and individual control) did not support our findings, but studies such as (Waghmare, 2016; Takaki et al., 2006) reported that there is a
significant difference between gender and locus of control and that females have high internal locus of control as compared to males.

Another study conducted by Prakash, Jain & Chauhan, (2015) observed that main effect of gender and locus of control were found to be statistically significant. Mahler, (1974) stated that Japanese females were found to be more on the powerful other factor of locus of control. He also revealed that interaction effect with gender and chance control was found to be reliable and women were more external than men. McLaughlin & Saccuzzo, (1997) in their study regarding the gifted children reported that higher internal locus of control was associated with females. On the other hand, few contradictory studies (Feng, Spence & Pratt, 2007; Strickland & Watson, 1971) demonstrated that there was no significant difference between gender (boys and girls) and locus of control.

The reason for the inconsistency of the current result and studies could be because the effect of the variables could have been studied differently in the respective studies, the sample size and different methodology used and also changes over time on how an individual think, what factors influences him/her for a particular behavior outcome.

The results of the empirical study also indicated that there is no interaction effect between gender x perceived loneliness, gender x family type and the dependent variables self-esteem, achievement motivation, Powerful others, chance control and individual factor of Locus of control. Similar study conducted by (Ansari, 2009) found that there was no interaction effect between loneliness and locus of control.

The result also indicated that independent variables in the study, i.e. Perceived loneliness, Gender and Family type affected the variables of the study independently and the combination all the independent variable did not affect the dependent variable. For example, interaction between gender, perceived loneliness and family type on self-esteem revealed that levels of loneliness effected self-esteem irrespective of the influence of gender and family type. Same can be said for all the variables.

The influence of gender difference has been widely studied in the literature. It has been established as an important factor that impacts an individual’s personality. Boys and girls have different personalities, thinking pattern, different upbringing and environment. These factors have a significant impact on the well-being and psychosocial adjustment of an adolescent boy or girl. (Feingold, 1994; Traindins, 1989)
In the current study, results have found that gender has an important impact on personality and gender differences have been found in perceived loneliness, self-esteem, achievement motivation, and factors of locus of control (powerful others, chance control and individual control). It has also been observed that gender is an important factor that affects one’s perception of self-esteem, ability or need to achieve, and one’s internal and external factors of locus of control. Guimond et al., (2007) stated that another cause for gender differences in personality constructs can be a result of social comparison between the genders. Deniz, Hamarta & Ari, (2005) argued that factor affecting gender difference could be different attachment and socialization patterns.

5.2.2 Family type.

When a child is born, things that he/she first encounter is his/her parents and his family. People in the family are the first people a child interacts with. The people in the family holds utmost importance in a child’s life. Family comprises of the people that surround the child. The child learns the first few basic concepts that help in the child’s development. The quality of relationship with the family and its environment determines the future life and behavior of a child. As a child moves from one stage to another influence of family always remains. When a child is in a transition phase towards adolescence, he/she goes through a lot of changes in physical, emotional and psychological aspects. Adolescent is an important period of growth and family plays a prominent role in it. Adolescents and their relationship with family changes during this period. A shift from dependency on family to greater influence of peers happens. Many researches indicate that family and its related factors such as providing secure base, providing feeling of connectedness and being valued are linked with positive and healthy outcomes in adolescents (Luthar, 2006; Rayner & Mantague, 2000; Paradis et al., 2011).

Studies which have been conducted in this area have well described that family has a significant influence on adolescents. The mean values indicated that adolescents belonging to nuclear families were found high on perceived loneliness, powerful others, chance control factors of locus of control (external factors).
Similar studies (Javeed, 2014; Selvaraj & Gnanadevan, 2012) supporting the current research suggest that nuclear family adolescents are high on loneliness. The studies done throughout past revealed that respondents from nuclear and joint families show a significant difference in locus of control (Ghumman, Ghumman & Shoaib (2013). Pattankar (2014) revealed that non-athletes belonging to nuclear family had higher belief that powerful others influenced their behavioral outcome.

Mean scores also indicated that adolescents belonging to joint families were found high on achievement motivation and individual control locus of control (internal factor).

Previous literature supports our result that joint family adolescents have a higher achievement than their counterparts (Laljibhai, 2016). Related study conducted by (Rehman & Singh, 2015; Adeoye, 2009) indicated that joint family adolescents have better adjustment and adaptation skills, and better emotional adjustment than nuclear family adolescents. This could be because adolescents who belong to joint families are able to socialize more.

Another interesting finding revealed by the current study was that adolescents belonging to nuclear and joint families have similar self-esteem and only a small mean difference was found.

Previous studies indicated a mixed view of levels of self-esteem in joint and nuclear families. Some studies (Kurup, Geetha & Prashanth, 2016) stated that adolescents in nuclear families have a high self-esteem. On the other hand, some researchers (Jan, Ashraf, 2008; Akhter & Hossain, 2012) reported that individuals belonging to joint families have higher self-esteem. But a related study done by (Sankar & Reddy, 2014) revealed that there was no difference between boys and girls belonging to joint and nuclear families with respect to their self-concept. Another study conducted by (Brown-Millin, 1985) indicated that self-esteem in boys did not differ in regard to the family type.

It can be argued that as long as the adolescents have a support of both their parents, siblings, and healthy interactions with friends and peers at school, have a healthy relationship with the family, and do not find discord in their families, the family type may not affect the level of self-esteem. Parent and child relation has been found to be an important factor in determining the self-esteem of adolescents. Studies such as (Bulandar & Majunadar, 2009; Alami et al. 2014) reported significant difference in
self-esteem of children belonging to single and two parent families. Therefore, the factors affecting self-esteem levels with regards to family type need to be further investigated in the light of above observations.

**a) Regression analysis for family type.**

The study further found that perceived loneliness was a significant predictor of self-esteem, achievement motivation and powerful others, chance control, individual control factors of locus of control in both nuclear and joint families. The regression analysis showed that perceived loneliness accounted for 28% and 26% of variance in predicting self-esteem in adolescents from nuclear and joint families, respectively.

Related literature states that children belonging to single parent families report feeling of loneliness (Bharat, 1986; Upadhyay, 1996) and show less cohesion with family members (Farber, Felner & Primarera, 1985). It also reported that association between parenting style and behavioral and emotional characteristics of children such as loneliness and self-esteem demonstrated a negative relation (Khoynezhad, Rajaie & Raad, 2008). On the contrary, (Uruk & Demir, 2002) reported that family structure accounted for 14% of variance in predicting loneliness in adolescents. But some previous researches conducted define effect of family type on loneliness (Ang, 2015; Johnson, LaVoie & Mahoney, 2001) and self-esteem (Nagar, Sharma & Goldy, 2008; Jain, 1989; Ganong & Coleman, 1993) suggest that the concepts i.e. loneliness and self-esteem are affected by family structure and dynamics. There is a reciprocal relation between loneliness and self-esteem (Perlman & Peplau, 1981). Also, very strong correlation (r=−0.5) between loneliness and self-esteem has been reported in a vast amount of literature summarized by Mahon et al. (2006). This suggests that the value of one variable strongly effects the other irrespective of any other variable such as family type as suggested in our results.

The above stated studies and our previous results suggest that there is a significant difference in levels of perceived loneliness in adolescents from nuclear and joint families. Even though differences in the perceived loneliness levels exist, once the level of perceived loneliness is known or determined, the perceived loneliness level is able to predict the self-esteem level irrespective of the family type. This suggests that an adolescent with low perceived loneliness will have low self-esteem irrespective of the family type he or she belongs to. The family type can play a role in determining
perceived loneliness levels, but once perceived loneliness level is known, the family type becomes irrelevant in determining the predicting power of perceived loneliness. An adolescent with low perceived loneliness can come from a joint or a nuclear family. Once he or she feels lonely, it affects his self-esteem level and hence perceived loneliness level can predict self-esteem level for adolescents belonging to either family type.

It also showed that achievement motivation was predicted by perceived loneliness and the variance it accounted for was 6% and 3% in nuclear and joint families, respectively.

When an adolescent feels lonely, he/she often tends to relate it to being not worthy. This leads them to the perception that they are not socially accepted (Ladd & Troop-Gordon, 2003). The feeling of worthlessness eventually leads to lower level of self-confidence and a lack of self-belief. This lack of self-belief affects various aspects of one’s personality including their academic performance such that the feeling of being unwanted and rejected severely effects the academic interest and leads to a decline in academic performance Farooqi, (self growth.com). A study conducted by Guay, Boivin & Hodges, (1999) stated that children who reported being lonely also experienced a lack of belongingness which leads to a lower perceived academic competence and thereby lower academic achievement. Cosan (2014) observed that loneliness causes negative feelings which lead to decreased will to do something in life.

Studies from the previous literature revealed that family structure affects loneliness (Korinek, 2013; Flook, Repetti & Ullman, 2005; Antognoli – Toland, 2001) and achievement motivation. (Beyer, 1995; Maya, 2001) reported that family as construct is an important factor that affects loneliness and achievement motivation. Some studies also suggested that family structure and environment play an important role in predicting achievement and academic performance (Kurdek & Sinclair, 1988; Casanova, Garica-Unares Cruz, Villa & Carpio, 2005). So, from the above literature we observed that family type has a relation with both loneliness and achievement motivation but it is shown that loneliness predicts achievement motivation irrespective of effect of family type.

The findings also demonstrated that perceived loneliness predicted powerful others, chance control and individual control factors of locus of control, and accounted for 16%, 12% and 4% variance for nuclear family, and 11%, 6% and 4% variance for joint family, respectively. Attribution has been described in the literature as one of the main
component in continuity of loneliness (Hymel, Franke & Freigang, 1985; Peplau, Miceli & Morasch, 1982; Renshaw & Brown, 1993). A lonely adolescent may have faulty attribution which may lead them to think that he/she has no one to turn to for social support (Aldwin, 2007). A lonely person attribution would be external if he/she perceives that outside forces are responsible for the damage and has no control over the forces. On the other hand, if the attribution is internal, he/she may think that his/her own characteristics are responsible for the feeling of loneliness and isolation. Lonely individuals attribute their failure to internal causes and success too external (Renshaw & Brown, 1993; Crick & Ladd, 1993) which may describe the link between loneliness and maladjustment.

There may be multiple factors that affect the attribution of an individual as loneliness may be linked to lowered self-esteem when loneliness is attributed to an internal cause, whereas there will be less impact on self-esteem when loneliness is externally attributed (Anderson, Horowitz & French, 1983; Peplau et al. 1982). Studies conducted by (Hojat, 1983; & D’ Augelli, 1983) reported that loneliness and external locus of control are connected to each other. On the other hand, a pool of literature has suggested that family as a factor is linked to both loneliness and locus of control (Johnson, LaVoie and Mononay, 2001; Pattankan, 2014). Therefore, it can be concluded that although both loneliness and locus of control are related to family type, but loneliness predicted both internal and external locus of control irrespective of influence of family type. In the vast literature, there is no study conducted stating that perceived loneliness in nuclear and joint families predicted powerful others, chance control and individual control factors of locus of control.

b) MANOVA analysis for family type.

Our results indicated that family type had a significant effect on chance control (external factor) and individual control (internal factor) factor of locus of control. The MANOVA analysis also revealed that family type and perceived loneliness, in combination effected chance control dimension of locus of control. Although no similar study was found supporting above result, but Grych & Fincham (1990) observed that family issue and parental conflict affects child’s wellbeing and leads to increased stress levels in children. For instance, children increasingly tend to blame themselves for bad outcomes due to which they have negative feelings. Peterson et al., (1982) stated that
internal, global, stable attributions for negative events leads to maladaptive adjustment and pessimistic attitude in life. It was observed that children whose parents had an authoritative style were characterized as internals whereas children whose parents were authoritarian were found to be externals. It was also seen that children who were raised in families which emphasized responsibility and independence were found to have internal locus of control (Abdellatief, 1993).

The literature survey demonstrated a different view of results which showed that upbringing style has an influence on locus of control (Almajali, 2012). On the contrary, some studies (Malhas & Abdouni, 1997; Abdellatief, 1993) suggested that locus of control did not differ in terms of what upbringing the adolescents get.

As described by Bronfenbrenner (1994), family is the immediate surrounding of a child. Family is child’s early micro system and a child learns how to live from the teachings given by the family. Family and its factors greatly influence a child and his/her well-being. The current study shows that how an adolescent differs in terms of perceived loneliness, self-esteem, achievement motivation, and factors of locus of control (powerful others, chance control and individual control). Different family structures and the processes in it impact an adolescent. Nuclear and joint families have different environments and styles of child’s upbringing. In nuclear families, parents tend to make adolescents independent, self-reliant and more achievement oriented (Suleman, Hussain, Akhtar & Khan, 2012; Akinsola, 2011). Adolescents from nuclear families have more influence of media and television on their behavior. They tend to have poor communication skill, and feel lonelier and lack emotional support from their parents (Bahadur & Dhawan, 2008). On the other hand, adolescents in joint families have higher emotional adjustment levels, perform better socially and have few Behavioral problems. The influence of grandparents plays an important role in healthy development of child. (Rehman & Singh, 2015; Dudley & Jewell, Stark from Rehman & Singh, 2015). Adolescents in joint families develop a feeling of dependency and feel more secure. It has also been observed that adolescents in joint families have low confidence in making decisions and realizing aspirations (Sinha, 1968).

It has been observed that nuclear and joint families have different impact on the development and upbringing of child. Both of them have benefits which are fruitful for a child’s growth. Although literature suggests that joint families or even the extended families may be more beneficial for the healthy development of the child (Tewari & 133).
Furthermore, it can also be observed that family directly impacts the personality of a child and also his/her self-esteem, achievement, attributional belief. Sinha (2008) indicated that living with family members develops values and good habits in children, and culture and tradition guarantee good upbringing and good values. Family structure forms an important factor in child’s good mental and psychological adjustment. Structure and conditions of families are changing which can be due to social and technological changes as result of modernisation and urbanization of the society. This plays an important role in influencing the family structure which in turn affects an adolescent’s development. (Kurup, Geetha & Prasanth, 2016; Shyam & Khan, 2009).

5.2.3. Hypotheses testing.

**H1.** There will be significant relationship between perceived loneliness and achievement motivation, self-esteem, powerful others, chance control and individual control factors of locus of control among adolescents.

This hypothesis has been accepted as there is a significant relationship between perceived loneliness and achievement motivation, self-esteem, powerful others, chance control and individual control factors of locus of control among adolescents stating that:

- Perceived loneliness is negatively related with self-esteem, achievement motivation and individual factor of locus of control.
- Perceived loneliness is positively related with powerful others and chance control factors of locus of control.

**H2.** Adolescents with high perceived loneliness will have low level of achievement motivation and self-esteem as compared to adolescence with low perceived loneliness.

This hypothesis has been accepted as there is a significant difference between adolescents with high perceived loneliness and low perceived loneliness in terms of achievement motivation and self-esteem.
- Further, there is a negative correlation between perceived loneliness and achievement motivation, and perceived loneliness and self-esteem.

**H3.** Adolescents with high perceived loneliness will be high on powerful others factor of locus of control as compared to adolescence with low perceived loneliness.

This hypothesis has been accepted as there is a significant difference between adolescents with high perceived loneliness and low perceived loneliness in terms of powerful others factor of locus of control.

- Also, there is a positive correlation between perceived loneliness and powerful others factor of locus of control

**H4.** Adolescents with high perceived loneliness will be high on chance control factor of locus of control as compared to adolescence with low perceived loneliness.

This hypothesis has been accepted as there is a significant difference between adolescents with high perceived loneliness and low perceived loneliness in terms of chance control factor of locus of control.

- Also, there is a positive correlation between perceived loneliness and chance control factor of locus of control

**H5.** Adolescents with high perceived loneliness will have low individual control as compared to adolescence with low perceived loneliness.

This hypothesis has been accepted as there is a significant difference between adolescents with high perceived loneliness and low perceived loneliness in terms of individual control factor of locus of control.

- Also, there is a negative correlation between perceived loneliness and individual control factor of locus of control.

**H6.** There will be significant effect of perceived loneliness on achievement motivation, self-esteem, powerful others, chance control and individual control factors of locus of control among adolescent boys and girls.

- This hypothesis has been accepted for adolescent girls as perceived loneliness
predicts achievement motivation, self-esteem, and powerful others, chance control and individual control factors of locus of control

- This hypothesis has been partially accepted for adolescent boys as perceived loneliness predicts self-esteem, and powerful others and chance control factors of locus of control, but does not predict achievement motivation and individual control factor of locus of control.

**H7.** There will be significant effect of perceived loneliness on achievement motivation, self-esteem, powerful others, chance control and individual control factors of locus of control among adolescents belonging to nuclear and joint families.

- This hypothesis has been accepted for adolescents from nuclear families as perceived loneliness predicts achievement motivation, self-esteem, and powerful others, chance control and individual control factors of locus of control

- This hypothesis has been accepted for adolescents from joint families as perceived loneliness predicts achievement motivation, self-esteem, and powerful others, chance control and individual control factors of locus of control.

**H8.** There will be significant interaction effect of perceived loneliness, gender and family type on the achievement motivation, self-esteem, powerful others, chance control and individual control factors of locus of control among adolescents.

- This hypothesis has been partially accepted since interaction effect between perceived loneliness and family type is found to be significant for chance control factor of locus of control, while other interaction effects are not found to be insignificant.

- Further, main effects of perceived loneliness on all dependent variables except individual control locus of control has been found to be significant.

- Further, main effects of gender on all dependent variables except chance control factor of locus of control has been found to be significant.

- Further, main effects of family type on chance control and individual control factors of locus of control has been found to be significant.