A Study of the Effects of Age, Gender, Ecology on Parenting, Behavioural Problems and Cognition among Mizo Adolescents

Mr. H.Lalthlangliana

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DEPARTMENT OF PSYCHOLOGY
MIZORAM UNIVERSITY
AIZAWL : 796012

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DEPARTMENT OF PSYCHOLOGY
MIZORAM UNIVERSITY
AIZAWL: 796012

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Certificate

This is to certify that the present piece of Thesis titled, "A Study of the Effects of Age, Gender, Ecology on Parenting, Behavioural Problems and Cognition among Mizo Adolescents " is the bonafide research conducted by Mr. H. Lalthlangliana under my supervision. He worked methodologically for his dissertation being submitted for the Doctor of Philosophy in Psychology under the Mizoram University.

(DR. ZOKAITLUANGI)
Supervisor

DECLARATION

I, H. Lalthlangliana, hereby declare that the subject matter of this Thesis is the record of work done by me, that the contents of this Thesis did not form basis for the award of any previous degree to me or to the best of my knowledge to anybody else, and that the Thesis has not been submitted by me for any research degree in any other University or Institute.

This is being submitted to Mizoram University for the Degree of Doctor of Philosophy in Psychology.

(H. LALTHLANGLIANA)

(DR. ZOKAITLUANGI)
Supervisor

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CHAPTER - I
INTRODUCTION

Youth is the period between childhood and adulthood, and is described as the period of physical and psychological development starting from puberty till maturity and continuing to early adulthood. Definitions of the specific age range that constitutes youth vary. An individual's actual maturity may not correspond to their chronological age, as immature individuals exist at all ages. Adolescence is a transitional period between childhood and adulthood, entered at approximately 10-12 years of age and ending at 18-22 years of age (Sanstrock, 2005). The age in which a person is considered a "youth", and thus eligible for special treatment under the law and throughout society varies around the world: 15 year to 24 years (United Nations General Assembly), 15 years to 25 years (World Bank) , 15 years to 29 years (the Commonwealth Youth Programme), 14 years to 21 years (Wilson School District), 13 years to 19 years (Alternatives Homes for Youth) .

The terms "youth ", "adolescent", "teenager", and "young person" are interchanged, often meaning the same thing, occasionally differentiated. The most significant characteristic of adolescence is rapid change. The prominent features of this period of development are: The pursuit of independence and an identity, more and more time is spent outside the family, thought becomes more abstract, idealistic and logical. For many youth, adolescence is a time of painful struggle, with mixed messages and conflicting demands. Influence of the media, of communities, of the streets, of peer groups and home invite teens to participate in self-destructive and illegal behaviours. These may include determining youth assets and expanding on them; learning assertiveness skills, conflict management, negotiation skills, and other competencies; and by having positive interaction experiences in peer groups (American Psychological Association, 1996).

Adolescence has been described as phase of life beginning in biology and ending in society (Petersen, 1988). Indeed, it may be defined as the period within the life span when most of person’s biological, cognitive, psychological, and social

characteristics are changing from what is typically considered child-like to what is considered adult-like (Lerner & Spanier, 1980). For the Adolescent, this period is a dramatic challenge, one requiring adjustment to change in the self, in the family, and in the peer group. In contemporary society, Adolescents experience institutional changes as well. Among young Adolescents, there is a change in school setting, typically involving a transition from High school; and in late Adolescence, there is a transition from High school to the worlds of work, University, or Childrearing. Adolescence is the developmental period of transition from childhood to early adulthood, entered at approximately 10-12 years of age and ending at 18-22 years of age, begins with rapid physical changes

Adolescence (from Latin: adolescere meaning "to grow up") is a transitional stage which involves biological (i.e. pubertal), social, and psychological changes, though the biological or physiological ones are the easiest to measure objectively. Historically, puberty has been heavily associated with teenagers and the onset of adolescent development. In recent years, however, the start of puberty has had somewhat of an increase in preadolescence (particularly females, as seen with early and precocious puberty), and adolescence has had an occasional extension beyond the teenage years (typically males). These changes have made it more difficult to rigidly define the time frame in which adolescence occurs. The timing of puberty can have important psychological and social consequences.

Problems of Adolescent:

Juvenile delinquency refers to delinquent and criminal behaviour among young people as they negotiate the transition from childhood to adulthood in an increasingly complex and confusing world. Although the issue of juvenile delinquency is an age long problem, it seems that the juvenile delinquency of the past cannot be compared with that of the present era. The antisocial behaviours often associated with the juvenile delinquents' include vandalism, drug abuse, weapon carrying, alcohol abuse, rape, examination malpractices, school violence, bullying, cultism, truancy, school drop-outs, to mention but a few.

Researches indicate that various exposures to violence within the family or outside the family are important sources of delinquencies. Violence encompasses all

emotional environmental aspects of the juvenile's life; he is more likely to engage in delinquent activities (Hagan and Foster 2001). Families behaviours particularly parental monitoring and disciplining seem to influence association with delinquent peers through out the juvenile period (Cashwell and Vacc 1994). A long history of research has further linked family dysfunction with future criminal offending, because parents monitor and provide nurturance to children. It is thought that the loosening of bonds among family members may result in more criminal involvement.

Continued efforts to decrease the number of delinquent acts have led many researchers to investigate the underlying factors that lead to juvenile delinquency. Researches indicate that the family environment is an important variable in the development of delinquency. Gorman-Smith and Tolan (1998) discovered that parental conflicts and parental aggressiveness predicted violent offending whereas lack of maternal affection and parental criminality predicted involvement in property crimes. In another study conducted by Gorman-Smith, data showed that children are more likely to resort to violence if there is violence within the relationships that they may share with their family (Gorman-Smith et al. 2001).

Early adolescents is a time when conflicts with parents escalates beyond childhood levels (Collins and Steinberg, 2006; Riesch & others, 2003). This increase may be due to a number of factors: the biological changes of puberty, cognitive changes involving increased idealism and logical reasoning, social changes focused on independence and identity, maturational changes in parents, and expectations that are violated by parents and adolescents. The adolescents compare their parents to an ideal standard and then criticize their flows. Conflicts with their parents increased with early adolescence. A high degree of conflict characterizes some parent-adolescent relationship. One estimate of the proportion of parents and adolescents who engage in prolonged, intense, repeated, unhealthy conflict is about one in five families (Montemayor, 1982) and this prolonged, intense conflict is associated with a number of adolescents' problems-movement out of home, juvenile delinquency, school dropout, pregnancy and early marriage, membership in religious cults, and drug abuse (Brook & others, 1990).

Problems of adolescent may be summarized in four areas (Verma, 1971): (*1*) *Family Problems, (2) School/College Problems, (3) Social Problems, and (4) Personal Problems and Over Sensitivity.*

(*1*) *Family Problems:*

(1) *Family Problems* including parenting indifference, parent strict supervision and lack of freedom, criticism and lack of recognition by parents, demands by family, interference, parental dominance, maintenance of difference between sons and daughters, rejection from parents, fear of parents, projection by parents, lack of affiliation, over-dependence on parents, inter-generation gap in ideology and sibling relations.

The family is the foundation of human society. Families are the strongest socializing forces of life. They teach children to eschew unacceptable behaviour, to delay gratification and to respect the right of others. Conversely, families can teach children aggressive, anti-social, and violent behaviours. Also, children who are rejected by their parents, who grow up in homes with considerable conflicts, or who are inadequately supervised are at the greatest risk of becoming delinquent.

The key function of a child's family is to raise the young person in as healthy a manner as possible (Bornstein, 1995). The parents' role is to provide the child with a safe, secure, nurturing, loving, and supportive environment, one that allows the offspring to have a happy and healthy youth; this short of experience allows the youth to develop the knowledge, values, attitudes, and behaviours necessary to become an adult making a productive contribution to self, family, community, and society (Lerner, et al., 1995). Wright and Wright (1994) described that the family is the foundation of human society. Children who are rejected by their parents, who grow up in homes with considerable conflict, or who are inadequately supervised are at the greatest risk of becoming delinquent. They suggested that positive parenting practices during early years and later in adolescence appear to act as buffers preventing delinquent behaviour and assisting adolescents involved in such behaviour to desist from delinquency. Hagan and Foster (2001) indicated that various exposures to violence are important sources of early adolescent role exits, which means that not only a juvenile can witness violence within the family but on

the outside as well. If violence encompasses all emotionally environmental aspects of the juvenile's life, he or she is more likely to engage in delinquent activities.

A host of studies drew inferences of family on children behaviour problems as: the lack of supervision and the absence of close relationships between the teenager and his parents are factors that influence delinquency (Demuth and Brown, 2004); the number of people in a family, inconsistent parenting, familial problems, child neglect, and the children's attachment to parents (Derzon and Lipsey 2000; Wasserman and Seracini 2001); familial communication and juvenile (Clark and Shields, 1997) cohesive family environment reduces the chances of delinquent behaviours (Cashwell and Vacc, 1996); low levels of adaptability in the family results in higher levels of delinquency (Shields and Clark, 1995).

Researchers have demonstrated that children who encounter changes in family structure often experience severe consequences such as lower academic attainment and adjustment (Cherlin et al., 1991; Cooney, 1988; Wallerstein & Corbin, 1986; Wallerstein & Huntington, 1983). Moreover, research suggests that adjustment problems continue beyond adolescence well into young adulthood as children of divorce often exhibit heightened difficulties with college, marriage, employment stability, and a host of problematic behaviours (Abelsohn & Sayman, 1991; Aro & Palosaari, 1992; Brody & Neubaum, 1996; Sampson & Laub, 1995).

This diversity that exists in family functioning, parenting, family structure and others coupled with diversity we have seen to exist in regard to family together have pervasive implications for adolescent development. Families, in their structure and function, influence virtually all facets of the youth's psychological and social functioning. This influence may be associated with both positive and negative characteristics of adolescent behaviour and development. As we have noted, all-too-often in today's society, there are problematic outcomes of adolescents' relations with their families. In many cases these outcomes are associated with the adolescent himself or herself being a parent. Although family influences are not the only source of problems in adolescence, they cause with these other sources in affecting in

incidence of problem behaviour; at the same time family of origin influences can protect youth from the occurrence of problem behaviours.

When parent-adolescent relationships provide support for the youth's behaviours, interest, and activities, numerous positive developmental outcomes are likely to occur. For instance, support has been associated with better school grades and scholastic self concept (Du Bois, Eitel, & Felner, 1994); with perceiving that social relationships could be more beneficial to one's development than risky (East, 1989); with being more satisfied with one's life (Young, Miller, Norton & Hill, 1995); and with a decrease likelihood of involvement in drinking, delinquency, and other problem behaviours (Barnes & Farrell, 1992). There is some evidence to suggest the contrary – that many parents are less concerned with solving particular troublesome childhood behaviours and more interested in knowing about why children do what they do. They may want to be 'forewarned' so as to be 'forearmed' (Clark-Stewart, 1978).

There are a range of behaviours and associated emotions exchanged between parents and their adolescent offspring: some of these exchanges involve positive and healthy behaviours and others involve opposite; some of the outcomes for adolescent development of these exchanges reflect good adjustment and individual and social success, whereas other outcomes reflect poor adjustment and problems of development. As is true for all facets of human development, there is then diversity in the nature and implications of parent-child relations in adolescence. The characteristics of parent-child interaction that are associated with positive outcomes for the adolescent are similar and they reflect support for and acceptance of the developing youth.

Certainly, receiving support from one's parents may elicit in the young person feelings of positive regard, or emotions characterized by a sense of attachment. When such emotions occur in adolescence, positive outcomes for the youth are seen. For instance, parent child relations marked by attachment are associated with high self-perceived competence, especially across the transition to junior High school, and with low feelings of depression or anxiety (Papini & Roggman, 1992). In addition, attachment is linked to feeling cohesive with one's

family (Papini, Roggman, & Anderson, 1991). Other research has found also relationships among attachment, a positive sense of self, and low levels of problematic behaviours or emotions, such as depression (Kenny, 1993.)

Researchers in the arena of family science have concluded that dysfunctional family environments (i.e., poor parental monitoring and disciplining, lack of or too much psychological control and family cohesion) may play an intricate role in the development of emotional problems displayed by young adults when attempting to adjust to a college environment (Harvey & Bray, 1991; Hoffman & Weiss, 1987). Roberts (1995) noted that college students who have difficulties adjusting to a college setting may have been reared in home environments indicative of poor intimacy and autonomy dimensions. Such findings parallel some research report that linking of authoritarian and permissive parenting styles to adolescent academic achievement and adjustment problems (Dornbusch et al., 1987; Lamborn et al., 1991; Lopez et al., 1988; Steinberg et al., 1989).

Among American youth, warm parental interactions are associated with effective problem solving ability in both the adolescent and the family as a whole; however, hostile interactions are associated with destructive adolescent problem solving behaviours (Ge, Best, Conger & Simons, 1996; Rueter & Conger, 1995). Similarly, among German adolescents, parental behaviour marked by approval and attention to the positive behaviour of the youth is associated with an adolescent who feels he or she is capable of controlling events that can affect him or her (Krampen, 1989); however, when parental behaviours disparage the child and fail to attend to his or her specific behaviour, the adolescent feels that chance determines what happens to him or her in life.

As illustrated by the above studies, warmth, non-hostility, and closeness seem to be characteristics of parent-adolescent interaction that are associated with positive outcomes among youth. Other research confirms these linkages. Feelings of closeness in the parent-adolescent relationship is related to parents' views of their parenting as satisfying to them and to the youth's self esteem and to his or her participation in family activities (Paulson, Hill, & Holmbeck, 1991).

In turn, non-hostile parent-adolescent relations are associated with better adjustment by the adolescent to the transition to Middle school and greater peer popularity (Bronstein, Fitzgerald, Briones & Pieniadz, 1993); in addition, non-hostility is related to a better self concept for girls and better classroom behaviour for boys. Moreover, when parents are attuned to their child's development and support his or her autonomy in decision making, the youth is better adjusted and gains in self esteem across the junior High school transition (Lord, Eccles, & McCarthy, 1994). Furthermore, parental religiosity, cohesive family relationships, and low interpersonal conflict are associated with low levels of problem behaviours and with self regulation among rural African- American youth (Brody, Stoneman, & Flor, 1996).

Family conflict seems inevitable (Fisher & Johnson, 1990). At the least, conflicts are a ubiquitous part of all families at some times in their history. Just as the reasons for conflicts between individuals, on the one hand, or nations on the others, varies, so too do the reasons for conflicts in families. Adolescents report that conflicts often arise because they feel that parents are not providing the emotional support they want, or because youth or parents believe the other generation is not meeting the expectations held for them, or because of a lack of consensus about family or societal values (Fisher & Johnson, 1990). Exposure to parental aggression is associated with elevations in interpersonal problems for male and female adults (Blumenthal, Neemann, & Murphy, 1998), and is associated with both physical and psychological aggression for males (Murphy & Hover, 1999; Murphy, Taft, & Echardt, 2007).

Nevertheless, despite its developmental course, the presence of conflict at any point in the parent-adolescent relationship may influence the behaviour and development of the youth. For instance, family conflict may lead the adolescent to think negatively about himself or herself, and can even eventuate in his or her thinking about suicide (Shagle & Barber, 1993).In addition, conflict is associated with “externalizing” problems (e.g., such as hostility) among youth (Mason, Cauce, Gonzales, Hiraga & Grove, 1994). In adolescent girls, the experience of menarche is associated with increase conflict, especially in the mother-daughter relationship, and as a consequence less positive emotions and more negative ones characterize

adolescent-parent exchanges (Holmbeck & Hill, 1991; Steinberg, 1987). In short, then, conflicts in the parent-adolescent relationship result in problems in youth development (Rubenstein & Feldman, 1993). A vicious cycle may be created in that, in turn, adolescent problems can increase parent-adolescent conflicts (Maggs & Galambos, 1993). Moreover, the negative emotions exchanged between adolescents and their parents' can themselves result in problems for the youth. For instance, fathers' feelings of stress are associated with adolescents' emotional and behavioural problems (Compas, Howell, Phares & Williams, 1989) and, as well, maternal stress is associated with "internalizing" problems (e.g., anxiety, depression) in adolescent boys and with poor school grades for adolescent girls.

The process through which parents' stress is linked to adolescent problems seems to involve the experience of depression in parent as a consequence of their stress which, in turn, disrupts effective parental discipline, and leads to adolescent problem behaviours (Conger & Patterson, 1995). Other research find that parental depression is associated with depression in youth (Gallimore & Kurdek, 1992), and that ineffective parenting behaviours (e.g., low self-restraint among fathers) eventuates in problem behaviours in their offspring (Baumrind, 1991; D'Angelo, Weinberger, & Feldman, 1995; Feldman & weinberger, 1994; Simsons, et al., 1991).

Clearly, then, parents' negative emotions can lead, through the creation of problematic parenting behaviours, to negative outcomes in adolescent development. Moreover, the presence of problem behaviours in parents per se is linked to problems in adolescent development. For instance, psychiatric disorders among parents are related to the occurrence of antisocial and hostile behaviours among adolescent (Ge, Conger, Cadoret & Neiderhiser, 1996b). In addition, problematic alcohol consumption—problem drinking or alcoholism—in parent is associated with alcohol use and abuse problems their adolescent offspring—a relation that occurs in European-American, African-American, and Latino families (Barrera, Li, & Chasis, 1995; Hunt, Streissguth, Kerr & Olson, 1995; Peterson,et al., 1994). Similarly, parental drug use results in a host of behavioural, cognitive, and self esteem problems in their offspring (Kandel, Rosenbaum, & Chen, 1994), maternal smoking is associated with smoking in their adolescent children (Kandel & Wu, 1995), and in fact parental substance use in general is linked to numerous problems of adolescent

personal and social, including experience with the substances (drugs, alcohol, cigarettes, etc.) used by parents (e.g., Andrews, Hops, Ary & Tildesley, 1993; Stice & Barrera, 1995). Moreover, when fathers have an emotionally distant relationship with their wives, and as a consequence turn to their adolescent daughters for intimacy and affection, the daughter show depression, anxiety, and low self esteem (Jacobvitz & Bush, 1996).

Moreover, parents of tenth graders with conduct problems are more hostile than parents of tenth graders with depression (Ge, et al., 1996); in addition, parents of tenth graders who are both depressed and showing problem behaviours have high levels of hostility and low levels of warmth when their children are in Grades 7, 8, and 9. Similarly, depression among both European-American and Asian-American adolescents is associated with family relations marked by low warmth and acceptance and high levels of conflict with mothers and fathers (Greenberger & Chan, 1996). In addition, anger, hostility, coercion, and conflict shown by both parents and siblings have a detrimental effect on adolescent adjustment (Pike, McGuire, Hetherington, Reiss & Plomin, 1996).

Research has demonstrated that parenting styles may be related to different working environments (Cherlin, 1996). For example, many parents with lower SES are employed in blue-collar positions and likely to experience strict and rigid working conditions with unyielding supervisors who stress authority. Thus, many lower income parents emphasize values such as obedience and respect for authority, reason less with children, and tend to be authoritarian (Maccoby, 1980; McLoyd, 1990). Such parents tend to downplay autonomy, curiosity, give-and-take communication, and independence, as these attributes are not an integral part of their daily lives (Maccoby, 1980; McLoyd, 1990; Simons, Whitebeck, Melby, & Wu, 1994). Conversely, middle- to upper-income parents are typically employed in white-collar employment positions. Such workers tend to experience tolerant, accepting, and flexible work conditions with supervisors that stress curiosity, communication, and creativity. Hence, many middle-income parents emphasize fairness, communication, reasoning, curiosity, and tend to be authoritative when rearing children, as these attributes are an integral part of their daily lives.

This relationship between Social Economic Status and parenting styles may be explained by parental education (Cherlin, 1996). Parents with less education have fewer resources to fund their children's higher education and may not see the merit of education beyond vocational training. In a landmark study, Sewell and Shaw (1968) found that both father's and mother's educational achievement was positively and significantly associated with parental encouragement of college plans, college attendance, and college graduation when controlling for aptitude. Moreover, Sewell and Shaw found that the higher the parents' educational level the greater the success and graduation rate of college students.

There may be implications for youth simply when their mother is at work or there is no parent at home. Indeed, a mother's time at work is obviously associated with the amount of unsupervised time a youth experiences after, and sometimes before, school (Muller, 1995; Richards & Duckett, 1994). Unsupervised time, especially the hours of 3:00 pm to 8:00 pm, does represent a problem period for youth; they often do not spend their time profitably during such periods (i.e., they" just hang out"), or they engage in high risk and or illegal behaviours during such times (Carnegie Corporation of New York, 1992). However, in such cases it is the lack of supervision and not maternal employment per se that is the source of these difficulties for youth.

Parents need to recognize the continued importance of their relationship with their adolescents, despite the changes that occur in the nature of their interactions. Moreover, the period following separation and divorce is quite stressful for youth (Doherty & Needle, 1991), especially if the adolescent is caught between divorced parents engaged in continuing, conflict, and hostile interactions (Brody & Forehand, 1990; Buchanan, Maccoby, & Dornbusch, 1991). Furthermore, in some cases there are gender differences in the reaction of adolescents to divorce. For instance, although girls tend to react more negatively than boys prior to the parents' separation, they also tend to adapt better than boys after the divorce (Doherty & Needle, 1991; Hetherington, et al., 1985

In turn, living under the custody of one's natural father is linked as well to problems for both male and female adolescents (Lee, et al., 1994). For instance,

adolescents living with their fathers adjust more poorly than youth living in other arrangements (e.g., with their mothers), a reaction that seems to be due to the closeness they have with, and the monitoring provided by, the parent with whom they are living (Buchanan, Maccoby, & Dornbusch, 1992). On the other hand, living with a stepfather, as compared to living with a stepmother, is associated with more positive self esteem among both male and female adolescents (Fine & Kurdek, 1992). Peer are important, but parental influence is seen as primary because early experiences with parents supposedly influence later relationships with peers (Sroufe, Egeland & Carlson,1999;Vandell,pp 703,705),and the right sort of parenting can supposedly keep an adolescent from joining the wrong sort of peer group (Lykken, 1997; Steinberg, 1997).

Many parents worry that their child may suffer because of low family income or maternal employment. Recent study shows that the impact of risk factors like low income and low maternal education on child adjustment is related in large part to how these risk factors influence parenting practices. Some differences in child adjustment were observed between girls and boys. Nonetheless, the impact of parenting was similar for girls and boys. Effective parenting produces similar positive outcomes for both girls and boys.

Juby and Farrington (2001) claimed that there are three major classes that explain the relationship between disrupted families and delinquency; Trauma theories, life course theories, and selection theories. The Trauma theory suggested that the loss of a parent have damaging effect on children, most commonly because of the effect on attachment to the parents. Life course theory focused on separation as long as drawn out process rather than a discrete event, and on the effects of multiple stressors typically associated with separation. Selection theory argued that disrupted families are associated with delinquency because of pre existing differences in family income of child rearing method.

Klain and Forhand (1997) suggested that the prediction of juvenile delinquency in early childhood depend on the type of maternal parenting skills that are imposed upon the child during early adolescent. Popenoe (1997), states that fatherless-ness is a major cause behind many disturbing US social problem. The

absence of fathers form children life is one of the most important causes related to children well beings such as increasing rate of juvenile crime, depression and eating disorders, suicide, and substance abuse.

Previous research suggests that family structure is related to parenting style and parenting stress, with single parenting believed to be related to less competent and more stressful parenting. From the study of family structure among African-American mother of infants. Preliminary analyses indicate demographic and psycho-social variability appears to play a greater role in parenting practices than family structure. Family structure affects role clarity and parent-child dysfunctional interaction, but maternal age, education, employment, and total family income affect maternal empathy, corporal punishment, parental distress, and the identification of the infant as a 'difficult child'(Dahpne S.Cain, Elizabeth Wilson, Terri Coms-Orme, College of Social Work.,The University of Tennessee, Knoxville, 2005).

The cohesiveness of the family successfully predicted the frequency of delinquent acts for non-traditional families (Matherne and Thomas, 2001). Family behaviours, particularly parenting monitoring and disciplining, seem to influence association with deviant peers throughout the adolescent period (Cashwell and Vacc, 1994). The coercive parenting and lack of parental monitoring contributes not only directly to boys' antisocial behaviour, but also indirectly seen in the contribution to their increased opportunity to associate with deviant peers, which is predictive of higher levels of delinquent acts (Kim et al, 1999). Gorman –Smith and Tolan (1998) found that parental conflict and parental aggressiveness predicted violent offending; whereas, lack of maternal affection and parental criminality predicted involvement in property crimes. Children are likely to resort to violence if there is violence within relationship that they may share with their family (Golman-Smith et al, 2001).

How successful are parents' attempts at socialization? By virtue of the fact that society continues to evolve, and is not characterized by intergenerational warfare or revolution, and that the vast majority of youth become contributing adults to society, we can conclude that socialization "works, "that the" apple does not fall far from the tree" (Adelson, 1970; Lerner, 1986) Indeed, during adolescence very few families – estimates are between 5% to 10% -experience a major deterioration in

the parent-child relationship (Steinberg, 1990). Moreover, not only do parents expect to see change in their sons' and daughters' behaviours as they socialize them during adolescence (Freedman-Doan, Arbreton, Harold & Eccles, 1993), but-through their interactions on a day-to-day basis-parents can model and or shape to see in their offspring (eg., Eisenberg & Mc Nally, 1993; Larson & Richards, 1994; Simons, Whitebeck, Conger & Conger ,1991; Whitebeck, 1987). It is through the relationship that parents and their adolescent children have that the most immediate bases are provided of youth behaviours and development.

(2) School/College Problems:

(2) *School/College Problems* which includes fear of college activities, fear of teachers, rejection and indifference by teachers, incompetence of teachers, harsh, rude and sarcastic behaviour of teachers, isolation, difficulties in school/college subjects and other handicaps at school/college.

Some "at-risk" indicators, such as those listed here, may represent persistent problems from the early elementary school years for some children (Jacobsen & Hofmann, 1997; O'Sullivan, 1989). Other students may overcome early difficulties but begin to experience related problems during Middle school or High school. For, others, some of these indicators may become noticeable only in early adolescence. To intervene effectively, parents and teachers can be aware of some common indicators of an adolescent at risk for school failure, including: *Attention problems*-as a young child in the student has a school history issues or disruptive behaviour. *Multiple retentions in grade*-the student have been retained one or more years. *Poor grades*-the student consistently performs at barely average or below average levels. *Absenteeism*-the student is absent five or more days per term. *Lack of connection with the school*-the student is not involved in sports, music, or other school-related extracurricular activities. *Behaviour problems*-the student may be frequently disciplined or show a sudden change in school behaviour, such as withdrawing from class discussions. *Lack of confidence*-the student believes that success is linked to native intelligence rather than hard work, and believes that his or her own ability is insufficient, and nothing can be done to change the situation. *Limited goals for the future*-the student seems unaware of career options available or how to attain those goals. Childhood depression places children at risk for cognitive delays because its

symptoms - attention problems, reduced motivation, and anaerobia - interfere with the process of learning new material and makes it difficult for children to engage in effortful cognitive tasks (Kovacs & Goldston, 1991).

Children of teenage mothers often experience school failures and poor life outcomes, including repeated grades, remedial classes, school suspensions, high levels of delinquent behaviour, substance abuse, violence, incarceration, and early childbearing (Seitz, 1996). They are more likely to experience abuse or neglect, and to drop out of High school (Mauldon, 1998). As these children age, there is an increasing disparity in intellectual functioning for children of adolescent mothers compared to the children of adult mothers. Differences between the children of adolescent and adult mothers first begin to emerge during the preschool years. Children of teen mothers typically exhibit low preschool readiness, behaviour problems, and grade retention (Brooks-Gunn & Chase-Lansdale, 1995) and often require special education services (Seitz, 1996). Children of teenage mothers exhibit more learning problems and lower scholastic competence than children of adult mothers in the 6th grade (East & Felice, 1990). By the time children of the adolescent mothers reach High school, they sometimes show problems not only in intellectual functioning but also in delinquency, low literacy levels, low educational aspirations, and early sexual activity; they are also more likely to be teen parents themselves (Brooks-Gunn & Chase-Lansdale, 1995; Brooks-Gunn & Furstenburg, 1986; Furstenberg, Hughes, &Brooks-Gunn, 1992).

Girls, and students from culturally or linguistically diverse groups, may be especially at risk for academic failure if they exhibit these behaviours (Steinberg, 1996; Debold, 1995). Stepping back and letting these students “figure it out” or “take responsibility for their own learning” may lead to a deeper cycle of failure within the school environments. Loeber (1987) reported that as many as 50% of elementary-school children have engaged in theft and as many as 37% of boys have been involved in physical assault. Based on self-report data from an American sample of 748 children aged 11 to 12 years, temperament plays an important role in how mothers interact with their children. Teen mothers frequently perceive them as more difficult, which in turn, influences parenting behaviours. Temperamental differences in cognitive skills and behavioural styles are often brought to school,

with some styles fitting better with school demands, for example, controlled activity levels, persistence, flexibility and the quality of mood are important for classroom success (Keogh, 1994). In addition, early personal adjustment also plays an important role in school success. For children in poverty who are at risk for school difficulties, school adjustments related to subsequent reading achievement, school adjustment (Dubow & Ippolito, 1994), and grade retention (Reynolds & Bezruczko, 1993). In addition, early school adjustment in kindergarten is related to future classroom adjustment problems and academic competence (Pianta, Steinberg & Rollins, 1995). Low levels of parental education, which often occur in conjunction with poverty and other risk factors, have also been linked to less favourable social and academic outcomes in several longitudinal studies (Dubow & Luster, 1990; Sameroff, Seifer, Barocas, Zax, & Greenspan, 1987; Werner & Smith, 1992). Of particular interest is Werner & Smith's (1992) finding that more parental education was associated with more positive parent-child interaction during infancy period?

Similarly, in a study of High school students, adolescents whose parents are accepting, firm, and democratic achieve higher school grade, are more self reliant, less anxious and depressed, and less likely to engage in delinquent behaviour than are youth with parents using other rearing styles (Steinberg, Mounts, Lamborn & Dornbusch, 1991); this influence of authoritative parenting held for youth of different ethnic and socio-economic background and regardless of whether the adolescent’s family was intact. Evidence shows that secure attachment buffers adolescents from the stress associated with transitions such as High school entry (Papini & Roggman, 1992).

Moreover, adolescents with authoritative parents are more likely to have well-rounded peer groups, that is, groups that admire adult as well as youth values and norms, e.g., academic achievement or school success and athletics or social popularity, respectively (Durbin, Darling, Steinberg & Brown, 1993). In turn, youth with uninvolved parents had peer groups that did not support adult norms or values, and boys with indulgent parents were in peer groups that stressed fun and partying (Durbin, et al., 1993). Flannelly et al. (1999), report that adolescents without parental supervision during and after school hours are more likely to engage in delinquent acts.

Featherstone et al. (1993) stated that youth from intact two-parent families are less likely to report school problems than children from single-parent families. Clark and Shields (1997) reported that the level of familial communication is related to adolescent delinquent behaviour. Cashwell and Vacc (1996) found that a cohesive family environment reduces the chances of delinquent behaviour. Similarly, Shields and Clark (1995) found that low levels of adaptability in the family result in higher levels of delinquency

Researches have produced the following manifestations of juvenile delinquencies in secondary schools. These include: cruelty, bullying, fighting, vandalism, roughness during games, use of foul language, stealing, lying, cheating, examination malpractice, gambling, truancy, drug abuse, noise-making, disobedience, stubbornness, apathy, untidiness, failure to wear correct school uniform, reading of pornographic materials, sexual immorality, mob action, loitering, and carrying of weapon. Bringing into perspective the preponderance of juvenile delinquency, Edelman (1995) discovers that about 1,234 youths run away from home and 2,255 teenagers drop-out of school each day. Every five minutes, a juvenile is arrested for some kind of violent crime, and every two hours a child is harmed with a weapon. Without doubt, the problem of juvenile delinquency in secondary schools is a grave one. Going by statistical data available on the Social and cultural: frequency, intensity and diversity of juvenile delinquency, it appears that in the war against juvenile delinquency, the adult society is steadily loosing ground on every front. Furthermore, the family unit is collapsing and diversifying, thus steadily losing ground on every front.

(3) Social Problems:

(3) *Social Problems* which includes social inferiority and social isolation.

Social and psychological changes during adolescence are not easily discernible and may manifest into Interpersonal problems or vice versa. These interpersonal problems may occur as a result of problems relating to other people and are among the most frequently reported types of problems in psychotherapy (Horowitz, 2004), (Horowitz, 2004). Interpersonal theory (Horowitz & Vitkus,

1986; Kiesler, 1983) purports two postulates about interpersonal behaviours. First, interpersonal behaviours are organized along two dimensions. One dimension is affiliation and ranges from hostile behaviour to friendly behaviour while the second dimension is power and ranges from submission to dominating. Second, two people reciprocally influence each other as they interact. Research generally supports these two postulates (Horowitz & Vitkus, 1986; Kiesler, 1983; Trobst, 1999).

Anti-social behaviour is defined as a cluster of related behaviours including disobedience, aggression; temper tantrums, lying, stealing, and violence (Patterson, 1982). Adolescents benefit from parental accessibility for emotional support, structure and monitoring regarding their engagement in delinquent behaviour and their association with peers who support this behaviour. Anti-social behaviour and bullying cam also cause problems. Antisocial behaviour is often seen as public behaviour that lacks judgment and consideration for others and may cause them or their property damage. It may be intentional, as with vandalism or graffiti, or the result of negligence. Persistent anti-social behaviour may be a manifestation of an antisocial personality disorder. The counterpart of anti-social behaviour is pro-social behaviour, namely any behaviour intended to help or benefit another person, group or society.

Poverty often drastically affects children's success in school. A child's "home activities, preferences, mannerisms" must align with the world and students having such problem have some disadvantages in the school, mostly in side the classroom. Therefore, it is safe to state that children who live at or below the poverty level will have far less success educationally than children who live above the poverty line. Poor children have a great deal less healthcare and this ultimately results in many absences from the academic year. Additionally, poor children are much more likely to suffer from hunger, fatigue, irritability, headaches, ear infections, flu, and colds. These illnesses could potentially restrict a child or student's focus and concentration.

Recent research and theory has focused on the processes by which family poverty leads to violence and delinquency in individuals who live in public housing and lower-income neighbourhoods (Aber, Seidman, Allen, Mitchell, & Garfinkel,

1992; Gonzales, Cauce, Friedman, and Mason, 1996). It is argued that poverty, structural disadvantage, and economic loss diminish parental capacity for consistent and involved parenting, exacerbates conflicts, undermines the quality of the family's interactions, and reduces parents' capacity to exert informal social control.

Beyond this level of analysis, economic factors may play a slightly outcomes such as place of residence, health care, and job opportunities are affected by family income (Tauchen, Witte, & Griesinger, 1994).Socio-economic status accounts for a large part of the variance in parenting practices. Bronfenbrenner's (1989) Ecological Systems Theory shows that differences in macrosystems (the general cultural milieu) affect microsystems (such as family, peers, school, and the community) as they influence the child's development. Bronfenbrenner explicitly predicts that macrosystem differences such as socioeconomic status and racial or ethnic group membership result in very different developmental outcomes. The concentration of poverty diminished employment opportunities for under-class inner city residents exacerbate the despair and hopelessness which characterize the inner city (Wilson, 1987). Skinner et al,(1992)have linked economic hardship to adolescent aggression in a middle-class rural sample. Economic hardship influences children through its effect on the parents. Economic hardship and adaptations to hardship increase husband's but not wives hostility and negative behaviour toward their spouses. Financial difficulty is related to irritable parenting and parent's irritable responses to discipline situations evoke expressions of aggression in their adolescent children.

(4) Personal Problems and Over Sensitivity

(4) *Personal Problems and Over Sensitivity:* including illogical fear, depressions, health and constitution, beauty consciousness, manners and habits, present and future career, personal handicaps, frustrations and, feelings of failure and inferiority.

At least one half of men who are court ordered for treatment for personal violent, possess distinct personality disorder traits (Dixon & Browne, 2003; Gondolf, 1999; Hart, Dutton & Newlove, 1993), with some studies reporting rates as

high as 80% to 90% in both court-referred and self-referred Personal violent men (Dutton & Starzomski, 1994; Hamberger & Hastings, 1991; Saunders, 1992).

Accompanying the abstract thought of adolescence is thought of full idealism and possibilities. Adolescents begin to engage in extended speculation about ideal characteristics-qualities they desire in themselves and in others. Such thoughts often lead adolescents to compare themselves with others in regard to ideal standards. Adolescents' sense of personal uniqueness makes them feel that no one can understand how they really feel. For example, an adolescent girl thinks that her mother cannot possibly sense the hurt she feels because her boyfriend has broken up with her. As part of their effort to retain a sense of personal uniqueness, adolescents might craft stories about themselves that are filled with fantasy, immersing themselves in a world that is far removed from reality. Adolescents also often show a sense of invincibility-feeling that although others might be vulnerable to tragedies; this thing won't happen to them. Some developmentalists believe that the sense of uniqueness and invincibility that egocentrism generates is responsible for some of the seemingly wreckless behaviour of adolescents, including drag racing, drug use, suicide, and failure to use contraceptives during intercourse (Dolcini & others, 1989).

Context effects also solve the puzzle of birth order. Some psychologists continue to believe that birth order has noticeable and lasting effects on personality, even though most studies of adult personality offer no support for this belief (Harris, 1998). Birth order studies in which parents are asked to rate their children's personalities or adults are asked to compare themselves with their siblings, generally do yield significant birth order effects; studies that use other methods generally do not (Harris, 2000). Birth order is a special interest of sibling researchers. The oldest sibling is expected to exercise self control and show responsibility in interacting with younger siblings. When the oldest sibling is jealous or hostile, parents often protect the younger sibling. The oldest sibling is more dominant, competent, and powerful than the younger siblings. The oldest sibling is also expected to assist and teach younger siblings. Indeed, researchers have shown that older siblings are more antagonistic-hitting, kicking, and biting-and more nurturing toward their younger siblings than vice versa (Abramovitch et al., 1986). In a study in which pairs of

siblings were rated both by parents and by teachers, parents judged the older siblings to be more aggressive than the younger one, but teachers judged them to be about the same (Deater-Deckard & Plomin,1999).

Adolescent with a childhood onset of aggression, rather than an adolescent onset of non-aggression are more likely to display the most persistent, severe, and violent antisocial behaviour. Indeed, childhood aggression is often viewed as an indication of a broader syndrome, frequently involving oppositional and defiant behaviour toward adults and covert rule-breaking behaviours. These behaviours could lead to more serious and recurrent violations in adolescence, such as stealing, vandalism, assault, and substance abuse. In short, the rearing of adolescents is not accomplished in the same way and with the same outcomes by all parents. Adults vary in their parenting styles and in the manner in which they socialize their children. These variations are linked to different individual characteristics of parents and, as well, to the features of the proximal and distal contexts within which parents and families are embedded. This variation is associated also with differences in other contextual factors—relating, for instance, to parental education, family social support, parental mental health, family stability, and poverty.

Many adolescents commit antisocial and delinquent acts at some time during their adolescence. Such manifestations of risk-taking, rebellion, and rejection of traditional values are a part of normal development. As Water (1983), for example, reported that 75% of American youth admitted to commit one or more delinquent behaviours during adolescence. This figure is likely an underestimate as West (1984) reported that over 90% of Canadian High school boys reported committing some delinquent acts, based on self-reports. Typical behaviours include swearing, fighting, shoplifting, truancy, drinking, and experimentation with drugs.

Adolescents may be subject to peer pressure within their adolescent time span, consisting of the need to have sex, consume alcoholic beverages, use drugs, defy their parental figures, or commit any activity in which the person who is subjected to, may not deem appropriate, among other things. Peer pressure is a common experience between adolescents and may result briefly or on a larger scale. If it results on a larger scale, the adolescent needs medical advice or treatment.

Much at-risk adolescence also is easily provoked to rage: they react aggressively to real or imagined slights and act upon them, sometimes with tragic consequences. They might misjudge the motives and intentions of others because of hostility and agitation (Coie & Dodge, 1998). Consequently, they frequently engage in hostile confrontations with peers and teachers. It is not unusual to find anger-prone youth threatening bodily harm to others. Most children and adolescents at one time or another act out or do things that are destructive or troublesome for themselves or others. If these behaviours occur often, psychiatrists diagnose them as conduct disorders. If these behaviours result in illegal acts by juveniles, society labels them as delinquents. Both problems are much more common in males than females.

There were more similarities than differences in the parenting of girls and boys. Parents reported equal levels of school support and harshness in parenting daughters and sons. Miller et al. (2002) concluded that the relationship between social-economic status and childhood internalizing and externalizing disorders did not significantly decline when parenting factors were taken into consideration. Both socio-economic status and parenting had independent and significant effects on childhood adjustment. Chao and Willms (2002) reached a similar conclusion, although parenting practices were found to mediate the relationship between socio-economic factors and child outcomes, mediating effects were generally small. Both Miller et al. (2002) and Chao and Willms (2002) conclude that children who grow up in poverty or under the influence of poor parenting practices are equally at risk. Based on their findings, they call for greater social investment in healthy child development through a blend of targeted and universal programs (Keating and Hertzman, 1999). In turn, support to mothers, especially when provided by relatives, can enhance adolescent and maternal adjustment, and improve the mother's parenting skills (Taylor & Roberts, 1995). For example, among 14- to 19-year-old African American youth, social support from kin was related to self-reliance and good school grades; however, when kinship support was low the youth experienced feelings of distress (Taylor, 1996).

Researchers have demonstrated that self-esteem, defined as the liking and respect for oneself, is vital for a variety of adolescent developmental outcomes

(Rosenberg, Schooler, & Schoenbach, 1989; Rosenthal & Simeonsson, 1989). Kashubeck and Christensen (1995) suggest that successful students have the propensity to feel a sense of personal worth and value about themselves. Such a finding supports Rice's (1992) extensive review wherein the author concluded that social adjustment, academic achievement, and vocational aspirations were consistently linked with self-esteem.

Several studies have found that positive and functional child-rearing techniques as well as parental-child relations during adolescence were associated with higher levels of adolescent self-- esteem (Barnes & Olson, 1985; Bell, Allen, Hauser, & O'Connor, 1996; Demo, Small, & Savin-Williams, 1987; Kashubeck & Christensen, 1995). Halpin, Halpin, and Whiddon (1980) found that parents who nurtured and rewarded their children, engaged in companionship with their children, and used positive punishment had children with higher levels of self-esteem. Conversely, overprotective parents who used external or negative punishment and deprived their children of privileges had children with lower levels of self-esteem. Finally, researchers have been found that parent whose child-rearing characteristics reflected psychological control, demand for submissiveness, and suppression of autonomy directly contributed to lower levels of self-esteem in their children (Amanat & Butler, 1984).

Factors of youth problems

Nature versus nurture" is a term coined by the English Victorian polymath Francis Galton regarding the influence of heredity and environment on social careers. Galton was influenced by the book ‘The Origin of Species,’ written by his cousin, Charles Darwin (1860). The concept embodied in the phrase has been criticized for its binary simplification of two tightly interwoven parameters, as for example an environment of wealth, education and social privilege are often historically passed to genetic offspring. The nature versus nurture debates concern the relative importance of an individual's innate qualities ("nature", i.e. nativism, or innatism) versus personal experiences ("nurture", i.e. empiricism or behaviourism) in determining or causing individual differences in physical and behavioural traits.

The view that humans acquired all or almost their behavioural traits from "nurture" is known as tabula rasa ("blank slate"). This question was once considered to be an appropriate division of developmental influences, but since both types of factors are known to play such interacting roles in development, many modern psychologists consider the question naive - representing an outdated state of knowledge (Dusheck, 2002; Ridley, 2003; Westen, 2002)

To disentangle the effects of genes and environment, behavioural geneticists perform adoption and twin studies. Behavioural geneticists do not generally use the term "nurture" to explain that portion of the variance for a given trait (such as IQ or the Big Five personality traits) that can be attributed to environmental effects. Instead, two different types of environmental effects are distinguished: shared family factors (i.e., those shared by siblings, making them more similar) and nonshared factors (i.e., those that uniquely affect individuals, making siblings different). To express the portion of the variance due to the "nature" component, behavioural geneticists generally refer to the heritability of a trait.

Although "nurture" has historically been referred to as the care given to children by the parents, with the mother playing a role of particular importance, this term is now regarded by some as any environmental (not genetic) factor in the contemporary nature versus nurture debate. Thus the definition of "nurture" has expanded to include influences on development arising from prenatal, parental, extended family, and peer experiences, and extending to influences such as media, marketing, and socio-economic status. Indeed, a substantial source of environmental input to human nature may arise from stochastic variations in prenatal development (Stetter, 1993., and Rice et al, 1997). While there are many examples of single-gene-locus traits, current thinking in biology discredits the notion that genes alone can determine most complex traits. At the molecular level, DNA interacts with signals from other genes and from the environment. At the level of individuals, particular genes influence the development of a trait in the context of a particular environment. Thus, measurements of the degree to which a trait is influenced by genes versus environment will depend on the particular environment and genes examined. In many cases, it has been found that genes may have a substantial

contribution, including psychological traits such as intelligence and personality (Plomin, 2001).

Adoption studies indicate that, by adulthood, adoptive siblings are no more similar in IQ than strangers (IQ correlation near zero), while full siblings show an IQ correlation of 0.6. Twin studies reinforce this pattern: monozygotic (identical) twins raised separately are highly similar in IQ (0.74), more so than dizygotic (fraternal) twins raised together (0.6) and much more than adoptive siblings (~0.0)(Bouchard, 1998). Already in 1951, Calvin Hall in his seminal chapter (Hall, 1951) remarked that the discussion opposing nature and nurture was fruitless. If an environment is changed fundamentally, then the heritability of a character also changed. Conversely, if the genetic composition of a population changed, then heritability will also change. As an example, we may use phenylketonuria (PKU), which causes brain damage and progressive mental retardation. PKU can be treated by the elimination of phenylalanine from the diet. Hence, a character (PKU) that used to have a virtually perfect heritability is not heritable any more if modern medicine is available.

Interaction of genes and environment are the most acceptable theory in explaining behaviour. *Hereditary factors and environment factors* have significant contribution on the cause of youth problems. It is difficult to say which is more important for shaping behavioural development in adolescents. Some of the behavioural and physiological factors that converge to increase or decrease a person's risk for alcohol problems, including tolerance to alcohol's effects, may be directly linked to genetics. For example, being a child of an alcoholic or having several alcoholic family members places a person at greater risk for alcohol problems. Children of alcoholics (COAs) are between 4 and 10 times more likely to become alcoholics themselves than are children who have no close relatives with alcoholism (Russell, 1990). COAs also are more likely to begin drinking at a young age (Donovan, 2004) and to progress to drinking problems more quickly (Grant, 1998).

Research shows that COAs may have subtle brain differences which could be markers for developing later alcohol problems (Tapert, 2005). For example, using

high-tech brain-imaging techniques, scientists have found that COAs have a distinctive feature in one brainwave pattern (called a P300 response) that could be a marker for later alcoholism risk (Begleiter, 1984; and Hill, 1993).

Researchers also are investigating other brainwave differences in COAs that may be present long before they begin to drink, including brainwave activity recorded during sleep (Dahl, 2003) as well as changes in brain structure (Hill, 2001) and function (Schweinsburg, 2004).

Some studies suggest that these brain differences may be particularly evident in people who also have certain behavioural traits, such as signs of conduct disorder, antisocial personality disorder, sensation-seeking, or poor impulse control (Bauer, 1999; Schuckit, 1997 and 1998; Tarter, 1985). Studying how the brain's structure and function translates to behaviour will help researchers to better understand how pre-drinking risk factors shape later alcohol use. For example, does a person who is depressed drink to alleviate his or her depression, or does drinking lead to changes in his brain that result in feelings of depression?

Other hereditary factors likely will become evident as scientists work to identify the actual genes involved in addiction. By analyzing the genetic makeup of people and families with alcohol dependence, researchers have found specific regions on chromosomes that correlate with a risk for alcoholism (Reich, 1998; Long, 1998; Foroud, 2000). Candidate genes for alcoholism risk also have been associated with those regions (Edenberg, 2005). The goal now is to further refine regions for which a specific gene has not yet been identified and then determine how those genes interact with other genes and gene products as well as with the environment to result in alcohol dependence. Further research also should shed light on the extent to which the same or different genes contribute to alcohol problems, in both adults and adolescents.

Pinpointing a genetic contribution however will not tell the whole story, as drinking behaviour reflects a complex interplay between inherited and environmental factors, the implications of which are only beginning to be explored in adolescents (Rose, 2001). And what influences drinking at one age may not have the same impact at another. As Rose and colleagues (2001) show that genetic factors

appear to have more influence on adolescent drinking behaviour in late adolescence than in mid-adolescence.

Environmental factors, such as the influence of parents and peers, also play a role in alcohol use (Halpern-Felsher, 2004). For example, parents who drink more and who view drinking favorably may have children who drink more, and an adolescent girl with an older or adult boyfriend is more likely to use alcohol and other drugs and to engage in delinquent behaviours (Castillo Mezzich, 1999)

Researchers are also examining other environmental influences as well, such as the impact of the media. Today alcohol is widely available and aggressively promoted through television, radio, billboards, and the Internet. Researchers are studying how young people react to these advertisements. In a study of 3rd, 6th, and 9th graders, those who found alcohol ads desirable were more likely to view drinking positively and to want to purchase products with alcohol logos (Austin, 2000).

By studying a very few cases, is it fair to say that a trait is due almost entirely to *nature*, or almost entirely to *nurture*. In the case of most diseases now strictly identified as genetic, such as Huntington's disease, there is a better than 99.9% correlation between having the identified gene and the disease and a similar correlation for not having either. On the other hand, Huntington's animal models live much longer or shorter lives depending on how they are cared for (animal husbandry). At the other extreme, traits such as native language are environmentally determined: linguists have found that any child (if capable of learning a language at all) can learn any human language with equal facility. With virtually all biological and psychological traits, however, genes and environment work in concert, communicating back and forth to create the individual. An examples of environmental, interactional, and genetic traits are: Specific language and specific religion are the predominantly product of environment, Bood type and eye colour are predominantly product of genetic where as height, weight and skin colour are the product of the interaction of environment and genetic (Pinker, 2004), and the concrete behavioural traits that patently depend on content provided by the home or culture—which language one speaks, which religion one practices, which political party one supports— are not heritable at all

On the problem of “nature versus nurture’ results on studies show that not only those siblings are different but that the home environment has had little or no net effect on the measured outcomes (Harris, 1995, 1998; Plomin, DeFries, McClearn, & Rutter, 1997; Rowe, 1994).. If being reared by conscientious parents, for example, tended to make children more conscientious, then two children reared by conscientious parents should, on average, both be more conscientious than two reared by careless parents. Therefore, two children reared in the same home should be significantly more alike in conscientiousness than two reared in different homes, which is exactly what the studies do not find (Bouchard, 1994). The same results also rule out the possibility that being reared by conscientious parents make children less conscientious on average. The bottom-line effect of the shared home environment on conscientiousness is not noticeably different from zero. That is why knowledgeable developmentalists (e.g., Collins, Maccoby, Steinberg, Hetherington, & Borestein, 2000; Vandell, 2000) are now showing a diminished interest in looking for main effect and a keen interest in gene-environment interactions. If being reared by conscientious parents makes children with one kind of temperament more conscientious and those with another kind of temperament less conscientious, then parents might have an influence after all, even in the absence of main effects. The study confirmed the finding that environment not shared by siblings was by far the largest (in many cases, the sole) non-genetic contributor to the adolescent's behaviour and adjustment, but it eliminated all of the following as possible sources of non-shared environmental influence: “differential marital conflict about the adolescent versus the sib, differential parenting toward siblings, and asymmetrical relationships the sibs construct with each other” (Reiss, 2000). Ruling out the last factor indicates that differences in age i.e. birth order, cannot account for the differences between siblings, a finding consistent with the results of a recent meta-analysis by Turkheimer and Waldron (2000).

Cultural / ecological factors on Behaviour:

Over the past few decades, there has been increasing recognition that culture plays an important role in shaping human behaviour. Culture, generally viewed as patterns of behaviours that are transmitted among members of a society, comprises

the rules and norms that promote stability and harmony within that society (Rogoff, 2003). Culture has been shown to affect many domains of family life including the way in which parents socialize their children (Harrison, Wilson, Pine, Chan, & Buriel, 1990; Kagitçibasi, 1996; Ogbu, 1994). In addition to traditional family beliefs within one's culture, factors such as social class, racism, prejudice, discrimination, acculturation, and family structure also influence parenting and child socialization (García Coll et al., 1996).

The term 'Acculturation' was used by anthropologists (Redfield, Linton, & Herskovits, 1936) to refer to group-level phenomena and define as "when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups". Some distinct explanations of acculturation are: acculturation is often conceptualized in psychological research at individual-level variable (Graves, 1967); a state which the amount of culture-related values, beliefs, affects, customs, and behaviours, adapted or endorsed by a minority/immigrant individual that are held by or norms of the majority/host culture (Ward, 1996); the "extent to which ethnic-cultural minorities participate in the cultural traditions, values, beliefs, and practices of their own culture versus those of the dominant "White society" (Landrine & Klonoff, 1996); a process of cultural change that results from repeated direct contact between two distinct cultural groups (Berry, Kim, Minde, & Mok, 1987); a process in which members of one cultural group adopt the beliefs and behaviours of another group (Birman, 1994); as the changes individuals undergo when they come into contact with another culture and adjustment to other culture may result in anxiety, depression, psychosomatic symptoms, and identity confusion (Williams & Berry, 1991); and as "devices and ideas interchanged and fertilized in the process of transfer" emphasizing that hostile groups often acculturate to one another (McGee, 1898). In sum, acculturation is a process of wherein psychological and behavioural adjustment, adaptation, assimilation, individual experience when being confronted with social and cultural changes in their cultural surroundings (Berry, Pootinga, Segall & Dasen, 1992).

When multiple ethnic groups coexist in the same social context, one group typically becomes dominant and creates minority groups (LaFromboise, Coleman, & Gerton, 1993). Minority status often results in discrimination which can be seen when minority men may displace the negative effects of discrimination on to women in the form of abusive behaviour (Comas-Diaz, 1995). For several converging reasons, acculturation is an increasingly important topic: (a) new technologies for high-speed, high-volume transportation and communication making increasingly easy for cultures to be in contact worldwide; (b) war, political oppression, economic disparities, and environmental pressures producing millions of new migrants annually; (c) regional and global free-trade arrangements that encourage international marketing and international recruitment of skilled personnel; and (d) the liberal political ideologies of the dominant, developed nations cause their governments, their minorities, and their academics to attend to acculturative rights and remediation (Rickard, 1994).

Many modern enculturation theories claim that ethnic minorities (including aboriginal natives, immigrants, refugees, and sojourners) can favour either the dominant culture, or their own minority culture, or both, or neither. Similar environmental condition may also lead to different forms of adaptations and requires actions such as conformity (Boyd, & Richerdson, 1985), enforcement norms (Binmore, 1985), change of cultural norms (Kuran, 1995), norm cascading (Mackie, 1996) and potential cultural patterns (Putnam, 1993), different level of acculturation (Suinn, Richard-Figueroa, Lew, & Vigil, 1987), and different negative/positive brunt with an example that international students' consistently seeking help from professional counseling (Zhang & Dixon, 2003).

Further, macrolevel influences affect the integration of different ethnic groups into the broader culture. For instance, immigration policies carefully select for well-educated, occupationally skilled, and healthy individuals (Immigration Canada, 1994) seeking to adapt to life in Canada. Federal policies of official multiculturalism, social programs designed to assist new immigrants with language learning, occupational retraining and placement, as well as free medical care and early childhood intervention programs are also likely to buffer the difficulties

inherent in settling in a new culture and country. Social mechanisms of racism and discrimination also operate at this macrolevel and may work independently of official policies. Differences in social, economic, and political histories of different ethnic groups may endure and result in the isolation or partial acceptance of the group by the larger culture.

Although Williams and Berry (1991) have indicated that refugee youth may be at risk for substance abuse, delinquency, depression, and psychopathological problems, Beiser, Hou, Hyman, and Tousignant (2002) and others have found that immigrant children and families (i.e., first generation) may have a "mental health advantage." Despite often living in poverty following migration, immigrant children have been shown to be as healthy as non-immigrant children and children born of immigrant parents (i.e., second generation; Beiser et al., 2002), as well as to display greater academic engagement and academic performance (Immigration Canada, 1994; Suárez-Orozco & Suárez-Orozco, 1995, 2001).

South Asian families also have a long history in Canada and have managed to integrate successfully into the broader cultural context. They obtain higher education and enter economic and political realms. Some have speculated that immigrants from South Asia have generally fared well with respect to adapting to the host culture, while retaining their strong ethnic identity, as a result of previous colonization experiences resulting in their being minorities within their own country (Ibrahim, Ohnishi, & Sandhu, 1997). This has been achieved through emphasis on self-respect, dignity, respect for elders and authority, and self-control as well as devotion to the family from early childhood (Obeid, 1988). Honor is a central value in the culture, and protecting family honor is of the utmost importance. To that end, strict discipline and the use of shaming as a child-rearing practice are common socialization strategies in South Asian communities (Feghali, 1997). Once again, although this approach may appear demanding to European American/Canadian children, the limited research on the relationship between parenting and child outcomes within the South Asian culture suggests that the more strict and controlling parenting practices seen within this culture are generally associated with positive child outcomes (Jambunathan, Burts, & Pierce, 2000; Stewart et al., 2000). Like East Asians, an orientation toward humility, family piety, and preservation of

harmony has resulted in the avoidance of freely expressing strong feelings and thoughts (Matthews, 2000).

Families of Caribbean background, owing to their history as descendants of British-owned slaves from Africa, demonstrate cultural rules and child-rearing practices that are a blend of British and African traditions (Lambert, Weisz, & Knight, 1989). As respect for elders is of utmost importance, many forms of undercontrolled behaviour (such as lying, stealing, defiance, and disobedience) are not tolerated in children, rude and aggressive behaviour, in particular, may warrant punishment by both parents and teachers. Similar to East Asian and South Asian families, restrictive and often physical discipline in Caribbean families is not generally associated with either negative social-emotional outcomes or high levels of aggression or externalizing behaviour (Deater-Deckard et al., 1996). For example, compared with European American children, undercontrolled behaviour in Jamaican children is not well tolerated, but certain kinds of over controlled behaviour appear to be more easily accepted by Jamaican than by American adults (Lambert et al., 1989). Whereas harsh discipline may imply an out-of-control, parent-centered household for some European American/Canadian families, a lack of physical discipline among African/Caribbean Canadian parents may indicate an abdication of the parenting role. Children do not necessarily view their parents' physical discipline as an indication of a lack of parental warmth and concern (Hill & Bush, 2001). Rather, Deater-Deckard et al. (1996) found that for African American families, authoritarian and “no nonsense” parenting behaviours were associated with positive child outcomes.

Although African American children have been found to be at higher risk of internalizing and externalizing symptomatology compared with European American children (Deater-Deckard et al., 1996), this is thought to be the result of persistent racial prejudice, discrimination, and economic loss (Allen & Mitchell, 1998; Chase-Lansdale & Gordon, 1996) in the macrocontext. In contrast, the voluntary immigration of the Caribbean Canadian community (Kalbach, 1990) and lessened residential and cultural segregation as a result of Canada's policy of multiculturalism (Fong, 1996) likely reduce the degree of risk for Caribbean Canadian children. At the same time, however, Caribbean Canadian families remain one of the smallest

visible minority groups in Canada and may therefore experience greater social and economic disadvantage.

Traditional Native child-rearing practices involve “affectionate lecturing” (Brant & Brant, 1983) that emphasize child resilience through teachings of interdependence among living things, self-reliance, community obligations, and cultural continuity. That resilience, however, has been seriously undermined by the colonial experience. At the beginning of the 19th century and over the past 100 years, many thousands of Aboriginal children were forcibly taken from their homes and placed in residential schools. By 1930, 75% of First Nations children between the ages of 7 and 15 years were enrolled in one of 80 residential schools across the country, and in the 1940s, attendance was expanded to include Inuit and Métis children (Claes & Clifton, 1998). Enrolment in residential schools was aimed at integrating Aboriginal children into European Canadian society by suppressing Aboriginal cultures and languages, restricting interaction with family and communities, and devaluing Aboriginal life and customs (Claes & Clifton, 1998). Compliance with school expectations was achieved through the use of emotional, physical, and sexual abuse.

The disadvantages faced by Native Canadian families, including cultural subjugation, economic and social adversity, poor education, and unemployment (Garrett, 1999; Hagey, Larocque, & McBride, 1989) has been documented. Rates of neglect and physical abuse have also been found to be higher among Aboriginal than non-Aboriginal families in Canada (Blackstock, Trocme, & Bennett, 2004). As the occurrence of multiple environmental risks have been shown to potentiate one another (Rutter, 1979; Sameroff, Seifer, Baldwin, & Baldwin, 1993), this may be important in explaining why Native Canadian children show disproportionate levels of mental health problems (Beals et al., 1997).

It is generally assumed that *inadequate income* is a risk condition for both parenting and child development. For example, Elder's (1974, 1979)studies of parenting during the Depression years and more recent studies of economic hardship in the agricultural mid-west (Conger et al., 1992; Lempers, Clark-Lempers, & Simons, 1989) show an association between financial hardship and less nurturing,

inconsistent parenting behaviour. McLoyd & Wilson (1991) summarize evidence that low socio-economic status (SES) parents are subject to greater stress, anxiety, and depression than higher SES parents and thereby are at risk for providing less optimal parenting, stating “it is reasonable to conclude on the basis of studies directly linking negative emotional states and punitive, non-supportive parenting that environmental and psychological distress partially account for well-established social class differences in parenting behaviour” . Stanley (1980) noted that the only successful parent training group was composed of parents with their adolescent children. Furthermore, only those parents showed a parallel decrease in authoritarian decision-making in family discussions.

Parenting on Behavioural problem:

Parenting is the process of promoting and supporting the physical, emotional, social, and intellectual development of a child from infancy to adulthood. Parenting refers to the activity of raising a child rather than the biological relationship. In the case of humans, it is usually done by the biological parents of the child in question, although governments and society take a role as well. In many cases, orphaned or abandoned children receive parental care from non-parent blood relations. Others may be adopted, raised by foster care, or be placed in an orphanage. The goals of human parenting are debated. Usually, parental figures provide for a child's physical needs, protect them from harm, and impart in them skills and cultural values until they reach legal adulthood, usually after adolescence. Among non-human species, parenting is usually less lengthy and complicated, though mammals tend to nurture their young extensively. The degree of attention parents invest in their offspring is largely inversely proportional to the number of offspring the average adult in the species produces.

Developmental psychologists have been interested in how parents influence the development of children’s social and instrumental competence since at least the 1920s. One of the most robust approaches to this area is the study of what has been called *"parenting style."* The adults also differ in the ways in which they enact their role as parent and show different styles of raising their children. Difference in child rearing styles is associated with important variation in adolescent development.

The classic research of Diana Baumrind (1971) resulted in the identification of three major types of child rearing styles: Authoritarian, authoritative and permissive parenting styles under which comes neglectful and indulgent parenting. Using naturalistic observation, parental interviews and other research methods, she identified four important dimensions of parenting: (1) Disciplinary strategies, (2) Warmth and nurturance , (3) Communication styles, (4) Expectations of maturity and control. According to these dimensions, Baumrind (1968) has categorized parenting into three styles: *authoritarian, authoritative, and permissive*.

Maccoby and Martin (1983) make further distinctions, identifying four styles: 1) the *authoritative*-reciprocal parent who is demanding and controlling as well as being accepting, responsive and child centered; 2) the *authoritarian*-power assertive parent exercises considerable control over the child and is demanding as well as rejecting, unresponsive, and parent-centered; 3) *permissive-indulgent* parents are highly involved in children's lives, but allow them a great deal of freedom and do not control their negative behaviours; and 4) *permissive-indifferent parents* are uninvolved in their children's lives and interact with them as little as possible.

In addition to Baumrind's initial study of 100 preschool children, researchers have conducted numerous other studies than have led to a number of conclusions about the impact of parenting styles on children which are:

(i) Authoritarian parenting styles generally lead to children who are obedient and proficient, but they rank lower in happiness, social competence and self-esteem.

(ii) Authoritative parenting styles tend to result in children who are happy, capable and successful (Maccoby, 1992).

(iii) Permissive parenting often results in children who rank low in happiness and self-regulation. These children are more likely to experience problems with authority and tend to perform poorly in school.

(iv) Uninvolved parenting styles rank lowest across all life domains. These children tend to lack self-control, have low self-esteem and are less competent than their peers.

The first style of rearing *Authoritarian* parenting is a restrictive, punitive style in which parents exhort the child to follow their directions and respect their work and effort. They are not warmth, stress rigid adherence to their rules they set (obey—just because we, the parents, are setting the rules), emphasize the power of their role, and use physical punishment for transgressions (Baumrind, 1971; Belsky, Lerner & Spanier, 1984). Children of Authoritarian parents unhappy, fearful, and anxious about comparing themselves with others, failed to initiate activity, and weak communication skills. Authoritarian parents are highly demanding and directive, but not responsive. "They are obedience- and status-oriented, and expect their orders to be obeyed without explanation" (Baumrind, 1991). These parents provide well-ordered and structured environments with clearly stated rules. Authoritarian parents can be divided into two types: non-authoritarian directive, which are directive, but not intrusive or autocratic in their use of power, and authoritarian-directive, which are highly intrusive.

Authoritative parenting encourages children to be independent but still places limits and controls on their actions. Extensive verbal give-and-take is allowed, and parents are warmth and nurturant toward the child. Authoritative parents show pleasure and support in response to children's constructive behaviour. Children whose parents are authoritative are often cheerful, self controlled and self reliant, and achievement oriented; they tend to maintain friendly relations with peers, cooperate with adults, and cope well with stress is marked by parental warmth, the use of rules and reasoning (induction) to promote obedience and keep discipline, non-punitive punishment (e.g., using "timeout" or "grounding" instead of physical punishment), and consistency between statements and actions and across time (Baumrind, 1971; Lamborn, Mants, Steinberg & Dornbusch, 1991). Authoritative parents are both demanding and responsive. "They monitor and impart clear standards for their children's conduct. They are assertive, but not intrusive and restrictive. Their disciplinary methods are supportive, rather than punitive. They want their children to be assertive as well as socially responsible, and self-regulated as well as cooperative" (Baumrind, 1991)

Permissive parents do not show consistency in their use of rules, they may have a "laissez-faire" attitude towards their child's behaviours (i.e., they may either

not attend to the child or let him or her do whatever he or she wants), and they may give the child anything he or she requests; their style may be characterized as being either more of a peer or, instead, as an independent "observer" of their child. Indeed, because of the diversity of behavioural patterns that can characterize the permissive parenting style, Maccoby and Martin (1983) proposed that this approach to parenting can best be thought of as two distinct types: Indulgent (e.g., "If my child wants something, I give it to her") and neglectful (e.g., "I really don't know what my child is up to. I don't really keep close tabs on her").

Neglectful parenting, which was under Permissive type, is a style in which the parent is much uninvolved in the child's life. These children tend to be socially incompetent. Many have poor self control and don't handle independence well. They frequently have low self-esteem, are immature, and alienated from the family. In adolescents, they may show patterns of truancy and delinquency. Uninvolved parents are low in both responsiveness and demandingness. In extreme cases, this parenting style might encompass both rejecting–neglecting and neglectful parents, although most parents of this type fall within the normal range.

Indulgent parenting, which is also under Permissive type, is a style of parenting in which parents are highly involved with their children but place few demands or controls on them. Such parents let their children do what they want. The result is that the children never learn to control their own behaviour and always and always expect to get their way. They might be domineering, egocentric, noncompliant, and have difficulties in peer relations. Indulgent parents (also referred to as "permissive" or "nondirective") "are more responsive than they are demanding. They are nontraditional and lenient, do not require mature behaviour, allow considerable self-regulation, and avoid confrontation" (Baumrind, 1991).

Reasons for differences in parenting styles include culture, personality, family size, parental background, socioeconomic status, educational level and religion. The parenting styles of individual parents also combine to create a unique blend in each and every family. For example, the mother may display an authoritative style while the father favors a more permissive approach. In order to

create a cohesive approach to parenting, it is essential that parents learn to cooperate as they combine various elements of their unique parenting styles.

Smetana and Daddis (2002) defined behavioural control as "rules, regulations, and restrictions that parents have for their children" and psychological control as "parents' attempt to control the child's activities in ways that negatively affect the child's psychological world and thereby undermines the child's psychological development". With specific reference to parental behavioural control, Shek (2006) suggested that at least five different aspects of this construct should be differentiated, including parental knowledge (how much the parent knows about the situation of the child), parental expectations (parental rules and expectations of the parent), parental monitoring (parental surveillance and tracking and whether the parent takes initiative to understand the child), parental discipline (reward and punishment of the child in relation to parental expectations), and global parental control with reference to some of the existing models of parenting, such as parental demandingness (e.g., Maccoby & Martin, 1983).

The intensity of parental involvement remains a matter of debate. At opposite extremes are Slow parenting in which parents stand back, merely supporting their children in doing what they want to do as independent individuals (but guiding them when the children are not developing healthy attitudes), versus Concerted cultivation in which children are driven to attend a maximum number of lessons and organized activities, each designed to teach them a valuable skill which the parent has decided for them. Beginning in the 17th century, two philosophers independently wrote their works that have been widely influential in child rearing. John Locke's 1693 book Some Thoughts Concerning Education is a well known foundation for educational pedagogy from a Puritan standpoint. Locke highlighted the importance of experiences to a child's development, and recommended developing their physical habits first. In 1762, the French philosopher Jean-Jacques Rousseau published a volume on Education, Emile: or, On Education, he proposed that early education should be derived less from books and more from a child's interactions with the world. Of these, Rousseau is more consistent with slow parenting, and Locke is more for concerted cultivation. Other theorists, mainly from

the twentieth century, have focused on how children develop and have had a significant impact on childhood education and how parents rear their children.

Jean Piaget's theory of cognitive development describes how children represent and reason about the world. This is a developmental stage theory that consists of a Sensorimotor stage, Preoperational stage, Concrete operational stage, and Formal operational stage. Piaget was a pioneer in the field of child development and continues to influence parents, educators and other theorists.

Erik Erikson, a developmental psychologist, proposed eight life stages through which each person must develop. In each stage, they must understand and balance two conflicting forces, and so parents might choose a series of parenting styles that helps each child as appropriate at each stage. The first five of his eight stages occur in childhood: The virtue of hope requires balancing trust with mistrust, and typically occurs from birth to one year old. Will balances autonomy with shame and doubt around the ages of two to three. Purpose balances initiative with guilt around the ages of four to six years. Competence balances industry against inferiority around ages 7 to 12. Fidelity contrasts identity with role confusion, in ages 13 to 19. The remaining adult virtues are love, care and wisdom.

Frank Furedi is a sociologist with a particular interest in parenting and families. He believes that the actions of parents are less decisive than others claim. He describes the term infant determinism, as the determination of a person's life prospects by what happens to them during infancy, arguing that there is little or no evidence for its truth. While other commercial, governmental and other interests constantly try to guide parents to do more and worry more for their children, he believes that children are capable of developing well in almost any circumstances. Furedi quotes Steve Petersen of Washington University: "development really wants to happen. It takes very impoverished environments to interfere with development ... (just) don't raise your child in a closet, starve them, or hit them on the head with a frying pan." Similarly, the journalist Tim Gill has expressed concern about excessive risk aversion by parents and those responsible for children in his book No Fear. This aversion limits the opportunities for children to develop sufficient adult skills,

particularly in dealing with risk, but also in performing adventurous and imaginative activities.

Hillary Clinton, former First Lady of the United States, later U.S. Senator, and current Secretary of State said that "Children are not rugged individualists", continuing with "everywhere we look, children are under assault: from violence and neglect, from the break-up of families, from the temptation of alcohol, tobacco, sex and drug abuse, from greed, materialism and spiritual emptiness". She endorsed infant determinism (the idea that a person's life is determined by events during the first three years of their life, and therefore that parents must treat very carefully) at the White House Conference on Early Childhood Development in April 1997, but without scientific evidence.

Parenting is a complex activity that includes many specific behaviours that work individually and together to influence child outcomes. Although specific parenting behaviours, such as spanking or reading aloud, may influence child development, looking at any specific behaviour in isolation may be misleading. Many writers have noted that specific parenting practices are less important in predicting child well-being than is the broad pattern of parenting. Most researchers who attempt to describe this broad parental milieu rely on Diana Baumrind's concept of parenting style. The construct of parenting style is used to capture normal variations in parents' attempts to control and socialize their children (Baumrind, 1991). Two points are critical in understanding this definition. First, parenting style is meant to describe normal variations in parenting. In other words, the parenting style typology Baumrind developed should not be understood to include deviant parenting, such as might be observed in abusive or neglectful homes. Second, Baumrind assumes that normal parenting revolves around issues of control. Although parents may differ in how they try to control or socialize their children and the extent to which they do so, it is assumed that the primary role of all parents is to influence, teach, and control their children.

Parenting style captures two important elements of parenting: *parental responsiveness and parental demandingness* (Maccoby & Martin, 1983). Parental responsiveness (also referred to as parental warmth or supportiveness) refers to "the

extent to which parents intentionally foster individuality, self-regulation, and self-assertion by being attuned, supportive, and acquiescent to children's special needs and demands" (Baumrind, 1991). Parental demandingness (also referred to as behavioural control) refers to "the claims parents make on children to become integrated into the family whole, by their maturity demands, supervision, disciplinary efforts and willingness to confront the child who disobeys" (Baumrind, 1991).

Parenting style has been found to predict child well-being in the domains of social competence, academic performance, psychosocial development, and problem behaviour. Research based on parent interviews, child reports, and parent observations consistently finds: (i) Children and adolescents whose parents are authoritative rate themselves and are rated by objective measures as more socially and instrumentally competent than those whose parents are no authoritative (Baumrind, 1991; Weiss & Schwarz, 1996; Miller et al., 1993). (ii) Children and adolescents whose parents are uninvolved perform most poorly in all domains.

In general, parental responsiveness predicts social competence and psychosocial functioning, while parental demandingness is associated with instrumental competence and behavioural control (i.e., academic performance and deviance). These findings indicate that children and adolescents from authoritarian families (high in demandingness, but low in responsiveness) tend to perform moderately well in school and be uninvolved in problem behaviour, but they have poorer social skills, lower self-esteem, and higher levels of depression.

Families of European background are characterized by an authoritative parenting style (Julian et al., 1994). Parents aim to strike a balance between demanding that their children behave appropriately and responding to their children's needs. They set standards for behaviour and consistently monitor their children's conduct, using no punitive methods of discipline when rules are broken. Among European American parents, the authoritative parenting style has been found to be associated with positive child outcomes (Ge, Best, Conger, & Simons, 1996; Nix et al., 1999; Rowe et al., 1994), whereas harsh and controlling parenting, including the use of physical discipline (e.g., spanking or hitting) is linked with

negative child outcomes (Simons et al., 1994; Weiss et al., 1992). In comparison with the other groups examined, European Canadian families compose the largest percentage of the larger host culture and have had the longest history within this broader culture. These two factors generally allow these families to obtain high levels of education and household income—both of which are associated with positive parenting and child outcomes. This group faces fewer obstacles to social class and less racism, prejudice, and discrimination than other cultural groups.

East Asian parents have been described as being more concerned with controlling behaviour so that children comply with a set of standards and placing emphasis on obedience, order, and respect for authority. Although this greater level of parental control may be considered authoritarian and viewed less positively by European American/Canadian children, these concepts have a very different meaning for East Asian children. As described by Chao (1994), many East Asian children equate their parents' strictness, firm control, and demand for obedience with parental care, warmth, love, and involvement because traditional East Asian child rearing concepts of chiao shun (or "training") and guan ("to govern" or "to care for") imbue such parental behaviours with a different cultural interpretation (Chen, Dong, & Zhou, 1997). Given the different cultural meaning of these parenting behaviours, East Asian American children have not been found to exhibit greater externalizing symptomatology like their European American peers. Rather they tend to manifest internalizing symptomatology or over-controlled behaviours such as anxiety or social withdrawal (Chang, Morrissey, & Koplewicz, 1995; Chao, 2001; Weisz, Chaiyasit, Weiss, Eastman, & Jackson, 1995) in response to harsh parenting. Reasons proposed for these differences include cultural constrictions against "losing face" and demands for filial piety (Chao, 1994, 2001), as well as a general Buddhist orientation toward non-aggression and the avoidance of expressing anger (Weisz et al., 1995).

Further, for East Asian Canadian families, a long history in Canada has generally resulted in greater social and economic supports, high levels of education and economic adequacy, and greater entrance into academic, social, and political fields, thereby boosting the representation and image of East Asians, thereby reducing racism, prejudice, and discrimination. East Asian Canadian families have

generally integrated well into the broader culture while maintaining many traditional aspects of their own culture (Schneider, Hieshima, Lee, & Plank, 1994).

Vandell cited the work of Steinberg, Lamborn, Darling, Mounts, and Dornbusch (1994) as support for the Statement that adolescent problem behaviour were related to parenting styles' (Vandell, 2000., Steinberg et al, 1994). Lamborn, Mounts, Steinberg & Dornbusch, 1991) found significant correlations between adolescents' descriptions of their parents' child-rearing methods and replies by same adolescents to questions about their own behaviours and attitudes. Evidence that such within informant correlations can be misleading was provided by Pike, Reiss, Hetherington, and Plomin (1996), who asked both parents and adolescent on the adolescent's antisocial behaviour. The researchers found significant correlations between the parents' two reports and the adolescents' two reports but negligible correlations between informants.

Whatever style parents use to rear their adolescents, the goal of parenting is to raise a child who is healthy and successful in life, who can contribute to self and to society, who accepts and works to further the social order. The process—the behaviours that are used over time—to reach these goals are termed socialization. Although all societies socialize their youth (in order that, as future contributors to society, the society can survive and prosper), there are marked differences in what different societies, or groups within society, want to see in a youth that has been "successfully" socialized. Said another way, there is great diversity in the specific goals parents have in socializing their youth. However, there was good evidence that parents do not treat their children all alike and then discussed the hypothesis (Hoffman, 1991, and Kagan, 1984) that even if the parents do treat their offspring alike, "different children might experience or interpret environmental events in different ways" (Harris, 1995) and again it may concluded that it could not resolve the discrepancies between a growing volume of data and the beliefs of most psychologists.

The tasks of parenting are complex and diverse. This had led to the perception of parenting as one of the most difficult roles with the least amount of preparation (McIntire, 1973; Edmister, 1977; Gordon, 1970) Parenting is a complex

activity that includes many specific behaviours that work individually and together to influence child outcomes. It is simply defined as how a person parents, (Jacobsen, 1994).

Parenting styles are collections of parental attitudes, practices, and nonverbal expressions that characterize the nature of parent-child interactions (e.g. Glasgow, Dornsch, Troyer, Steinberg, & Ritter, 1997). It was noted by Baumrind (1967, 1971) that preschool children with different parenting attitudes differed in their degree of social competence.

Only a few studies have directly examined the relation of parenting style to moral reasoning development; however, numerous studies have examined component variables that comprise distinct parenting styles. For example, Clarity of Communication, a predominant characteristic of Authoritative parenting, includes parental behaviour that has been identified most prevalently as Induction, which, under a variety of names, has been significantly positively related to moral reasoning development of both the Piagetian and Kohlbergian varieties (Hoffman & Saltzstein, 1967; Holstein, 1976; Parikh, 1980; Shoffeit, 1971; Speicher-Dubin, 1982).

Whether the three categories of rearing style originally proposed by Baumrind (1967, 1971), the four categories suggested by Maccoby and Martin (1983), or other labels are used, it is clear that the behavioural variation summarized by used of the different categories is associated with differences in adolescent behaviour and development (Lamborn, et al., 1991). For example, in a study of over 4,000 of 14 to 18 years olds, adolescents with authoritative parents had more social competence and fewer psychological and behavioural problems than youth with authoritarian, indulgent, or neglectful parents (Lamborn, et al., 1991). In fact, youth with neglectful parents were the least socially competent and had the most psychological and behavioural problems of any group of adolescents in the study. In turn, youth with authoritarian parents were obedient and conformed well to authority, but had poorer self concepts than other adolescents. Finally, while youth with indulgent parents had high self confidence, they more often abused substances, misbehaved in school, and were less engaged in school.

Considerable additional research confirms the generally positive influence on adolescent development of authoritative parenting and, in turn, of the developmental problems that emerge in youth when parents are authoritarian, permissive, indulgent, or uninvolved (e.g., Almeida & Galambos, 1991 ; Baumrind, 1991 ; Brown, et al., 1993; Feldman & Wood, 1994; Melby & Conger, 1996; Paulson, 1994; Simons, Johnson, & Conger, 1994; Wentzel, Feldmen, & Weinberger, 1991). Moreover, this research confirms as well that the positive influences of authoritative parenting extend to the adolescent's choice of, or involvement with peers (e.g., Brown, et al., 1993). Thus, the influence of parents is often highly consistent with the influence of peers among adolescents (Lerner & Galambos, 1998).

It is now thought that parenting programmes may have an important role to play in the improvement of maternal psychosocial health. Initial finding suggested that parenting programmes could have a significant effect on parenting attitudes and practices, and on factors such as marital relations and parenting stress (Todres and Bunston 1993). A number of studies have shown that there may also be an impact on general aspects of maternal functioning, including levels of anxiety, depression (Mullin et al 1994; Scott and Stradling 1987), and self-esteem (Mullin et al 1994).

Adolescents need to feel that their parents are engaged and supportive of them. Adolescents are more independent than children in many aspects of their lives. Nonetheless, parents should support their adolescents by remaining psychological available to them while, at the same time, fostering their autonomy. Specific parenting skills include warmth, acceptance of individuality, active listening, behaviour monitoring, limit setting and negotiation.

Another element of parenting related to several core components of morality is Authoritative Parenting (Baumrind, 1980). "Maladaptive moral-emotional patterns are prevented in the authoritative type of parenting advocated by Baumrind; for as Baumrind has shown, authoritative child rearing fosters social sensitivity, self-awareness, and respect for rules and authority" (Damon, 1988). This style of parenting has been defined by the intersection of two parental tendencies: responsiveness and demandingness. Responsiveness is understood as the provision of nurturance and support. Establishing a warm, mutually positive basis for

interaction promotes the development of conscience and moral reasoning in children. Moreover, it is linked to secure attachment and self-esteem, two of Berkowitz's (1997) meta-moral characteristics, and thus has effects that go beyond the province of moral development.

Many family variables have been studied in an attempt to better understand the etiology of delinquency. For example, Rosenbaum (1989) found that adolescents who have a strong bond with their parents are less likely to be delinquent. Flannery et al. (1999) reported that adolescents without parental supervision during after-school hours are more likely to engage in delinquent acts.

We have seen that parents vary in their rearing styles, in the directions in which they socialize their youth, and in the types of relationships they have with, and behaviours and emotions they show to their offspring. A good deal of this diversity is not only quite healthy but in fact, necessary to maintain the richness of culture and experience that enhances human life. On the other hand, other instances of this variation—involving for instance, indulgent, neglectful, or authoritarian rearing styles, hostile interactions marked by negative emotions and the display of problem behaviours—can result in significant problems for youth. Studies reveal that parental attitudes and behaviour towards the child have a long-term impact on parent-child relationship and child's adaptive and maladaptive functioning (Le Vine, Miller & West, 1988; Whiting & Edwards, 1988). Parental warmth and affection allows children to explore their environment and are related to the development of feelings of security, confidence, trust and positive orientation towards others (Bowlby, 1969; Baumrind, 1967 & 1971; McDonald, 1992; Radke-Yarrow et al, 1983), while warm and responsive parenting result in co-operative and afflictive behaviour and social competence (Booth et al, 1994; Hart et al, 1992). Parental reaction to their children's distress and need for help are found to be related to pro-social behaviour (Zahn-Wazler et al, 1979) and social competence (Roberts & Strayer,1987). In contrast, parental hostility and neglect are found to be associated with incompetent and deviant behaviour such as aggression and other adjustment problems (Dishion, 1990; Hart et al, 1992; Russell & Russell, 1966). Physical punishments initiate hostility (Bandura & Walters, 1959; Becker et al, 1962; Sears et al, 1957; Lytton, 1980); and when used with rejection, it result in aggression and

delinquency (Becker et al, 1962; Eron et al, 1961; McCord et al., 1959). Restrictive parents provoke negative responses (Ku Czynski et al, 1987) or effectively suppress the child's negative behaviour like aggression at home but these are likely to seek outlets outside the home (Loeber & Dishion, 1984). The studies by Vandell (2000) and Harris (2000) provide more insightful reasoning on association between socialization and personality development in adolescents.

There is no single or definitive model of parenting. What may be right for one family or one child may not be suitable for another. With authoritative and permissive (indulgent) parenting on opposite sides of the spectrum, most conventional and modern models of parenting fall somewhere in between of the two such as:

Attachment parenting – Seeks to create strong emotional bonds, avoiding physical punishment and accomplishing discipline through interactions recognizing a child's emotional needs all while focusing on holistic understanding of the child.

Historic Developmental (Child as Apprentice) Model As a child's independent capacities emerge, ever more complex opportunities for parental teaching and child mastery of the widest possible number of essential skills and knowledge is presented. The child gains self-worth simultaneous to the emergence of various competencies in an ever-growing number of essential venues, as adulthood is approached. From the initial highly dependent relationship with parents and direct community support, high levels of independence are attained seamlessly while special skills and abilities of the child have emerged in a manner relevant to successful adult vocational choices and expanded life interests.

Nurturant parent model – A family model where children are expected to explore their surroundings with protection from their parents.

Single Parent Model – The percentage of children being raised by single parents has been flat for the last 20 years but it remains nearly double the rate of 1970. Obstacles which create difficulty for single parents relate primarily to a halving of the numerous resources fundamental to parenting: income is often reduced dramatically; opportunities to present and process adult male and female roles, responsibilities,

and skills to children is reduced; sharing of household maintenance with another adult is reduced; opportunities to see parents display affection and cooperation despite differences is reduced; both boys and girls will lack the cooperative presentation of adult male and adult female points of view regarding socialization fundamentals.

Slow parenting – Encourages parents to plan and organize less for their children, instead allowing them to enjoy their childhood and explore the world at their own pace.
Strict father model – An authoritarian approach, places a strong value on discipline as a means to survive and thrive in a harsh world.

In the United States, disparate models explicitly termed "*Christian parenting*" are popular among some parents who claim to apply biblical principles to parenting. Information on Christian parenting is found in publications, Christian parenting websites, and in seminars devoted to helping parents apply Christian principles to parenting. While some Christian parenting models are strict and authoritarian others are "grace-based" and share methods advocated in attachment parenting and positive parenting theories. Particularly influential on opposite sides have been James Dobson and his book Dare to Discipline, and William Sears who has written several parenting books including The Complete Book of Christian Parenting & Child Care' and 'The Discipline Book'.

In a study of Christian parents done by Christian Parenting Today in 2000, 39% of the families surveyed have family devotions once a week or more, and 69% of parents consider Sunday school, youth and children's programs extremely important.

(1) *Taking Children Seriously* – Sees both praise and punishment as manipulative and harmful to children and advocates other methods to reach agreement with them.

(2*) Parenting for Everyone* – The philosophy of Parenting for Everyone, which stems from the book by the same name, considers parenting from the ethical point of view. It analyzes parenting goals, conditions and means of childrearing. It offers to look at a child's internal world (emotions, intelligence and spirit) and derive the

sources of parenting success from there. The concept of heart implies the child's sense of being loved and their ability to love others. The concept of intelligence implies the child's morals. And the concept of spirit implies the child's desire to do good actions, avoid bad behaviour, and avoid encroaching upon anybody's dignity. The core concept of the philosophy of Parenting for Everyone is the concept of dignity, the child's sense of worthiness and justice.

In study, parental involvement, encouragement of psychological autonomy, and demands for age-appropriate behaviour combined with limit setting and monitoring (i.e. Authoritative parenting) contribute to good psychosocial, academic and behavioural adjustment among adolescents (Baumrind, 1971, 1991; Steinberg, Dornbush & brown, 1992; Steinberg, Darling & Flatcher, 1995). Similar to the way in which parental sensitivity and responsiveness contribute to secure attachment in infancy, recent findings indicate that parental warmth and involvement, psychological autonomy granting, and behavioural control and monitoring are associated with security of attachment in late childhood and early adolescence (Karavasillis, Doyle & Margolese, 1999). Low warmth and low control were particularly associated with dismissing and avoidant attachment, and low psychological autonomy granting with preoccupied attachment. Thus, in adolescence, it appears that parental behaviour that fosters autonomy in the context of parental availability, in addition to parental warmth and responsiveness, becomes important for security attachment.

Parenting style provides a robust indicator of parenting functioning that predicts child well-being across a wide spectrum of environments and across diverse communities of children. Both parental responsiveness and parental demandingness are important components of good parenting. Authoritative parenting, which balances clear, high parental demands with emotional responsiveness and recognition of child autonomy, is one of the most consistent family predictors of competence from early childhood through adolescence. However, despite the long and robust tradition of research into parenting style, a number of issues remain outstanding. Foremost among these are issues of definition, developmental change in the manifestation and correlates of parenting styles, and the processes underlying

the benefits of authoritative parenting (see Schwarz et al., 1985; Darling & Steinberg, 1993; Baumrind, 1991; and Barber, 1996).

In reviewing the literature on parenting styles, one is struck by the consistency with which authoritative upbringing is associated with both instrumental and social competence and lower levels of problem behaviour in both boys and girls at all developmental stages. The benefits of authoritative parenting and the detrimental effects of uninvolved parenting are evident as early as the preschool years and continue throughout adolescence and into early adulthood. Although specific differences can be founding the competence evidenced by each group, the largest differences are found between children whose parents are unengaged and their peers are equally consistent, but somewhat smaller (Weiss & Schwarz, 1996). Just as authoritative parents appear to be able to balance their conformity demands with their respect for their children's individuality, so children from authoritative homes appear to be able to balance the claims of external conformity and achievement demands with their need for individuation and autonomy.

The research on parenting styles has viewed parental control as a single dimension that ranges from excessive control to insufficient control, but research that began in the early 1990s has focused on distinguishing among different forms of parental control. The primarily distinctions are between psychological control and behavioural control. As described by Steinberg (1990) and elaborated by Brian Barber and his colleagues (Barber 1996, 2002), psychological control refers to parents' attempts to control children's activities in ways that negatively affect their psychological world. Psychological control, including parental intrusiveness, guilt induction, and love withdrawal, undermines psychosocial development by interfering with children's ability to become independent and develop a healthy sense of self and personal identity. In contrast, behavioural control refers to the rules, regulations, and restrictions that parents have for their children and their supervision and management of their activities. One aspect of behavioural control that has been extensively investigated is parental supervision and monitoring, or parents' awareness of where their children are, who they are with, and what they are doing. Parental monitoring is increasingly important in adolescence, as adolescents spend less time with their parents and more time with peers. This distinction

between psychological and behavioural control further distinguishes the parenting styles described by Baumrind. Authoritarian parents, who have firm rules for their children's behaviour, use a great deal of behavioural control but little psychological control, while authoritative parents use the later.

Parenting style has been found to predict child well-being in the domains of social competence, academic performance, psychosocial development, and problem behaviour. Research based on parent interviews, child reports, and parent observations consistently finds: Children and adolescents whose parents are authoritative rate themselves and are rated by objective measures as more socially and instrumentally competent than those whose parents are non-authoritative (Baumrind, 1991; Weiss & Schwarz, 1996; Miller et al., 1993) while Children and adolescents whose parents are uninvolved perform most poorly in all domains. This research attempts to find out the relationship between parenting styles and behavioural problems among Mizo adolescents students

Parenting on intelligence:

Parenting style may have an impact on the child's school behaviour. Many experts distinguish among permissive, authoritarian, and authoritative parenting styles (Baumrind, 1991). These parenting styles are associated with different combinations of warmth, support, and limit-setting and supervision for children. The permissive style tends to emphasize warmth and neglect limit-setting and supervision; the authoritarian style tends to emphasize the latter and not the former; while the authoritative style is one in which parents offer warmth and support, and limit-setting and supervision. When the authoritative parenting style is used, the adolescent may be more likely to experience academic success (Glasgow et al., 1997). Authoritative parents are warm and responsive but are also able to establish and enforce standards for their children's behaviour, monitor conduct, and encourage communication. Authoritative parents make clear that they expect responsible behaviour from their child their adolescent or the school when their teen seems to be having difficulty. However, it is important to remember that adolescents need their parents not only to set appropriate expectations and boundaries, but also to advocate for them.

Such an achievement would hopefully result in cognitive-developmental growth represented by the construct of Parental Awareness which is defined as an organizes knowledge system with which the parent makes sense out of the child's responses and behaviour and formulates policies to guide parental action. At successive stages of Parental Awareness, parents would theoretically be aware of deeper aspects of the child and of more complex interactions between the child and themselves. With greater awareness, greater flexibility would evolve in sorting through the dimensions and arriving at resolutions of the tasks of parenthood (Newberger, 1980). The four levels of Parental Awareness are :- (1) Egoistic orientation: The parent understands the child as a projection of his or her own experience, and the parental role is organized around parental wants and needs only. (2) Conventional orientation: The child is understood in terms of externally derived (tradition, culture, and authority) definitions and explanations of children. The parental role is organized around socially-defined notions of correct practices and responsibilities. (3) Subjective-individualistic orientation: The child is viewed as a unique individual who is understood through the parent child external definitions of children. The parental role is organized around identifying and meeting the needs of this child rather than as the fulfillment of pre-determined role obligations. (4) Process or interaction orientation: The parent understands the child as a complex and changing psychological system.

The parent, as well as the child grows in his role, and the parent recognizes that the relationship and the role are built not only on meeting the child's needs but also on finding ways of balancing his or her own needs and the child's so that each can be responsibly met (Newberger, 1980).

It is not surprising that attempts to understand the concept of intelligence are filled with controversy. One of the most controversial areas in the study of intelligence centers on the extent to which intelligence is influenced by genetics and the extent to which it is influenced by environment. Most research on heredity and environment does not include environments that differ radically. Thus, it is not surprising that many genetic studies show environment to be a fairly weak influence on intelligence (Fraser, 1995). Although genetic endowment may always influence a

person's intellectual ability, the environmental influences and opportunities we provide children and adults do make a difference. Studies have found significant correlations between socioeconomic status and intelligence (Seifer, 2001). The way that parents communicate with children, the support parents provide, the neighbourhoods in which families live, and the quality of schools may contribute to these correlations. A study on parents on welfare and middle-income professional families (Hart & Risley, 1995) revealed that the middle-income professional parents were much more likely to communicate with their young children than the welfare parents were. And how much the parents communicated with their children in the first three years of their lives was correlated with the children's Standford-Binet IQ scores at age 3. The more parents communicated with their children, the higher the children's IQ'S were. Schooling also influences intelligence (Ceci & Gilstrap, 2000; Christian, Bachnan, & Morrison, 2001). The biggest effects have been found when large groups of children have been deprived of formal education for an extended period, resulting in lower intelligence. So, the present study also tried to find out the parenting relationship with intelligence by employing Parenting Scale constructed by Steinberg (1990) and Steinberg et al (1989 & 1991).

IQ scores for youth are lower in larger families, wherein mother's educational attainment and the family's social support are low, and where the family is of minority background and poor (Sameroff, Seifer, Baldwin & Baldwin, 1993; Taylor, 1996). In turn, in regard to family stability, there is a considerable body of research that indicates that divorce is associated with social, academic, and personal adjustment problems, including those associated with early initiation of sexual behaviour (e.g., Brody & Forehand, 1990; Carson, Madison, & Santrock, 1987; Demo & Acock, 1988; Doherty & Needle, 1991; Hetherington, 1991; Hetherington, Cox, & Cox, 1985; Simons et al, 1994; Wallerstein, 1987; Whitbeck, Simons, & Kao, 1994; Zaslow, 1988, 1989). In addition, parent-child relations are less hierarchical and children are pushed to grow up faster in divorced families (Smetana, 1993).

A committee of respected researchers convened by the American Psychological Association concluded that by late adolescence, the heritability of intelligence is about .75, which reflects a strong genetics influence (Neisser &

others, 1996). A key point to keep in mind about heritability is that it refers to specific group (population), not to individuals (Okagaki, 2000). Thus, many genetic studies show environment to be a fairy weak influence on intelligence (Fraser, 1995).Interestingly, researchers have found that the heritability of intelligence increases from.45 in infancy to as .80 in late adulthood (McGue & others, 1993; Petrill, 2003; Plomin & others, 1997).Hereditary influences on intelligences increase with age, as we grow older, our interactions with the environment are shaped less by the influence of others and the environment on us and more by our ability to choose our environment to allow the expression of genetics tendencies (Neisser & others, 1996). Today, most researchers agreed that heredity does not wholly determine intelligence (Gottlieb & Blair, 2004; Gottlieb, Washlsten, & Lickliter, 2006) and believed that modifications in environment can change their IQ scores considerably (Cambell & others, 2001). Although genetic endowment may also influence a person's intellectual ability, the environmental influences and opportunities provided children and adults to make differences. One study examined the intelligence of the children's in South Africa whose schooling was delayed for four years because teachers were not available (Ramphal, 1969). Another possible effect of education can be seen in rapidly increasing IQ test scores around the world (Daley & others, 2003; Flynn, 1999).

But traits that reflect the underlying talents and temperaments —how proficient with language a person is, how religious, how liberal or conservative— are partially heritable. IQ debate Evidence suggests that family environmental factors may have an effect upon childhood IQ, accounting for up to a quarter of the variance. On the other hand, by late adolescence this correlation disappears, such that adoptive siblings are no more similar in IQ than strangers (Plomin, 2001).

During adolescence children are beginning to form their identity and are testing and developing the interpersonal and occupational roles that they will assume as adults. Although adolescents look to peers and adults outside of the family for guidance and models for their behaviours, parents remain influential in their development. Parents often feel isolated and alone in parenting adolescents, but they should still make efforts to be aware of their adolescence activities, provide guidance, direction, and consultation. Adolescence can be a time of high risk for

children, where newfound freedoms can result in decisions that drastically open up or close off life opportunities. Parental issues at this stage of parenting include dealing with "rebellious" teenagers, who didn't know freedom while they were smaller.

Adults or maturity is the result of complex and slow psychologically and physically developmental processes (1) Young adults – as children become young adults their personalities show the result of successful or unsuccessful parenting. Especially it is noticeable when young adults make their independent life decisions about their education, work and choosing mates for friendship or marriage.
(2) Middle age and old age – Parenting doesn't stop when children grow up and age. Parents always remain to be parents for old children. Their relationship continues developing if both parties want to keep it or improve. The parent has to provide adequate advice to them. Traditionally, young mothers receive advice from their own parents, and exchange advice with other young mothers. Pediatricians are a common source for expert developmental advice. Informal mother's groups and playgroups provide young parents with playmates for their children while at the same time provide opportunities for asking questions and sharing advice and information. Parenting books, magazines, and websites offer a wide range of advice and ideas. Parents' magazine was started by George J. Hecht in 1926 and is the oldest parenting publication in the United States. Dr. Benjamin Spock's book The Common Sense Book of Baby and Child Care became a bestseller in 1946, and by 1998 it had sold more than 50 million copies. Hundreds of books have been written on the topic, each with the author's own philosophy on how best to raise a child. Television documentaries such as The Trouble with Evan and programs such as Bringing up Baby and Super nanny offer glimpses into the lives of other families and the effects of their parenting methods.

As seen in the previous report that behavioural problem of adolescents has been a subject of study of Western psychologists, sociologists and educationists for the last so many years. But in India very scanty research work regarding the various problems of the youth is available. The information related to the problems of the youth in western countries may not be applicable to the Indian youth, because of the vast differences in family relationship, socio-economic condition, values, etc.

Behavioural expectations of the developed countries of the West and East are vastly different from those prevailing in India (Gyanani, 1996). This research attempts to find out the relationship between parenting styles and behavioural problems among Mizo adolescents students

The statement of the problems of the study is described in the chapter to follow.

CHAPTER – II
STATEMENT OF THE PROBLEM

The present study was designed with the aim to determine the effects of parenting on behavioural problems and cognition among Mizo adolescents to meet the following objectives. The study aimed to elucidate the cause and effect relationship, in addition to the correlation inferences, by way of incorporating three–way classification of variables of two setting of 'Ecology' (urban and rural), two 'Gender' (female and male) and two group of 'Age' (lower age group: 13-15 years and upper age group: 17-19 age groups) as independent measures on the sub-scale/sub-factor measures of parenting, youth problems, intelligence as dependent variables. In the light of the studies, it is expected that the behavioural measures would find replicability in the project population-the Mizo adolescents in predicting the independent effect and conjoint effect of the independent variables on dependent variable in the projected population under study.

Approximately 36 million (35% of the total population of 1025 million) in the country (India), consists of youth (between 15-24 years as per WHO definition). In 1981, the youth population was approximately 125 million and 171 million at the beginning of 1991 and increased up to over 230 million at the beginning of 2001. Keeping in view the important role played by the youth towards National development, and the emerging health problems of the youth, WHO declared 1985 as the International Youth Year. In the last few years, due to socio-economic and political factors, there has been increasing problems among the youth: unemployment, suicide, alcoholism, sex-related offence and general adjustment problems. Today, the youth in India form one of the most vulnerable groups, who on the one hand are expected to be leaders to determine the destiny of India, and on the other hand, are an exploited and confused group (Sahni, 2005).

Wright and Wright (1994) described that the family is the foundation of human society. Children who are rejected by their parents, who grow up in homes with considerable conflict, or who are inadequately supervised are at the greatest risk of becoming delinquent. They suggested that positive parenting practices during

early years and later in adolescence appear to act as buffers preventing delinquent behaviour and assisting adolescents involved in such behaviour to desist from delinquency. Hagan and Foster (2001) indicated that various exposures to violence are important sources of early adolescent role exits, which means that not only a juvenile can witness violence within the family but on the outside as well. If violence encompasses all emotionally environmental aspects of the juvenile's life, he or she is more likely to engage in delinquent activities.

The cohesiveness of the family successfully predicted the frequency of delinquent acts for non-traditional families (Matherne and Thomas, 2001). Family behaviours, particularly parenting monitoring and disciplining, seem to influence association with deviant peers throughout the adolescent period (Cashwell and Vacc, 1994). The coercive parenting and lack of parental monitoring contributes not only directly to boys' antisocial behaviour, but also indirectly seen in the contribution to their increased opportunity to associate with deviant peers, which is predictive of higher levels of delinquent acts (Kim et al, 1999). Gorman –Smith and Tolan (1998) found that parental conflict and parental aggressiveness predicted violent offending; whereas, lack of maternal affection and parental criminality predicted involvement in property crimes. Children are likely to resort to violence if there is violence within relationship that they may share with their family (Golman-Smith et al, 2001). Huesmann (1988) and Bandura (1973) argued that children learn aggressive behaviour through both observational learning and enactive learning. There is a positive relationship between a child's observation of others behaving aggressively and the child behaving aggressively. Eron (1987) also holds the view that severe antisocial aggression is primarily a learned behaviour. The idea that antisocial behaviour culminates from reinforcement, a contingent response from the parent to the child's aggression; identification, the internalization of parental standards and modeling of the behaviour of significant adults is a reverberating theme to many researchers (Eron, 1987; Berkowitz, 1988; Huesmann, 1988). Behavioural genetic studies estimate genetic and environmental influences on developmental outcomes by measuring of siblings (Harris, 1995, 1998; Plomin, DeFries, McClearn, & Rutter, 1997; Rowe, 1994) revealed that Genetic effects generally account for 35% to 65% of the variance among the participants, the effects of being reared in the same home account for 0 to 10%, and the balance remains unaccounted for (Harris, 1995, 1998;

Plomin, DeFries, McClearn, & Rutter, 1997; Rowe, 1994). Studies have shown that children who inherit predispositions toward criminal behaviour (Cloninger et al., 1982; Mednick et al., 1987), schizophrenia (Tienari et al., 1994), or alcoholism (Cloninger et al., 1982; McGue, 1999) are more likely to fall prey to these risks if they are reared in adverse circumstances.

In adoption studies, researcher determines whether the behaviour of adopted children is most like that of their biological parents of their adopted parents. In two studies, the educational levels attained by biological parents were better prediction of children's IQs scores than what the IQs of the children's adopted parents (Petrill & Deater-Deckard, 2004). A committee of respected researchers convened by the American Psychological Association concluded that by late adolescence, the heritability of intelligence is about .75, which reflects a strong genetics influence (Neisser & others, 1996). A key point to keep in mind about heritability is that it refers to specific group (population), not to individuals (Okagaki, 2000). Thus, many genetic studies show environment to be a fairy weak influence on intelligence (Fraser, 1995).

Interestingly, researchers have found that the heritability of intelligence increases from.45 in infancy to as .80 in late adulthood (McGue & others, 1993; Petrill, 2003; Plomin & others, 1997). Hereditary influences on intelligences increase with age, as we grow older, our interactions with the environment are shaped less by the influence of others and the environment on us and more by our ability to choose our environment to allow the expression of genetics tendencies (Neisser & others, 1996). For example, sometimes children's parents push them into environments that are not compatible with their genetic inheritance (wanting to be a doctor or engineers, for example), but as adults these individuals may select their own career environments. Genes always exist in an environment and the environment shapes their activity. The present study employed the *Raven Standard Progressive Matrices* to discern the effect of parenting of intelligence among the comparison groups.

Previous research suggested that family structure is related to parenting style and parenting stress. Family structure affects role clarity and parent-child

dysfunctional interaction. Maternal age, education, employment, and total family income affect maternal empathy, corporal punishment, parental distress, and the identification of the infant as a 'difficult child' (S.Cain, Wilson & Coms-Orme, 2005). Delinquency, such as school misbehaviour, drug usage, and weapon carrying, is a disturbing issue confronting adolescents, parents, and teachers alike. It is estimated that in the United States, 1,234 youths run away from home and 2,255 teenagers drop out of school every day. Every five minutes a youth is arrested for some type of violent crime, and every two hours a child is killed by a gun (Edelman, 1995).

High sibling conflict can also be detrimental to adolescent development, especially when combined with ineffective parenting. A longitudinal study revealed that a combination of ineffective parenting (poor problem solving skills, weak supervision skills, parent-adolescent conflict) and sibling conflict (hitting, fighting, stealing, cheating) at 10-12 years was linked to antisocial behaviour and poor peer relations from 12-16 years of age (Bank, Burraston, & Snydei, 2004). Also, by virtue of having a sibling, children may be treated differently by their parents.

Youth who become involved in criminal behaviour at young ages (i.e., late childhood or early adolescence) appear to be at an especially high risk for continuing such behaviours during adulthood (Gendreau, Little, & Goggin, 1996; Loeber, Stouthamer-Loeber, & Green, 1991; Moffitt, 1993; Patterson, Capaldi, & Bank, 1991). These same youth are also at high risk for other problems, such as academic difficulties, substance abuse and early sexual behaviour, each of which may have serious long term consequences (Dryfoos, 1990; Hawkins, 1995; Howell, 1995). Accordingly, young adulthood tend to have greater difficulties than their peers in work; tend to abuse substances; and tend to have problems in interpersonal relationships such as marriage or parenting (Caspi, Elder, & Herberner, 1990; Farrington, 1991; Magnusson, 1992; Quinton & Rutter, 1988; Robins, 1993; Ronka & Pulkkinen, 1995).

The relationships between early youth antisocial behaviour and problem behaviour during adolescence and adulthood have led us and other researchers to view such behaviour as a key marker of maladjustment (Reid & Eddy, 1997).

Further, it is a marker that has significant societal significance that Youth antisocial behaviour is considered one of the most costly child mental health problems in the U.S. (Kazdin, 1994). Cross-national studies show that countries with a high degree of economic inequality have higher levels of violence (Gartner 1990). Other studies show that, even within a generally deprived population, it is the most deprived children who face the greatest risks of engaging in crime and violence (Werner and Smith 1992). Finally, Currie notes the research of Krivo and Peterson (1996), who suggest that it is the link between extreme disadvantage and violence that underlies much of the association between race and violent crime in the United States.

Juby and Farrington (2001) claimed that there are three major classes that explain the relationship between disrupted families and delinquency; Trauma theories, life course theories, and selection theories. The Trauma theory suggested that the loss of a parent have damaging effect on children, most commonly because of the effect on attachment to the parents. Life course theory focused on separation as long a drawn out process rather than a discrete event, and on the effects of multiple stressors typically associated with separation. Selection theory argued that disrupted families are associated with delinquency because of pre existing differences in family income of child rearing method.

Klain and Forhand (1997) suggested that the prediction of juvenile delinquency in early childhood depend on the type of maternal parenting skills that are imposed upon the child during early adolescent. Popenoe (1997), states that fatherless-ness is a major cause behind many disturbing US social problem. The absence of fathers form children life is one of the most important causes related to children well beings such as increasing rate of juvenile crime, depression and eating disorders, suicide, and substance abuse.

A large body of research relates authoritative parenting with children's academic achievement and prosocial behaviour. Dornbusch, et al. (1987) found that authoritative parenting is positively correlated with adolescent school performance, whereas authoritarian and permissive parenting are negatively related. These findings relate to aggression because Eron (1987) has found that academic achievement and antisocial aggression tend to be at opposite ends on a continuum.

High academic achievers tend to behave pro-socially, whereas antisocially aggressive children tend to be low academic achievers.

Antisocial behaviour in adolescent is a severe problem in most contemporary societies. It includes overt aggressive behaviour such as fighting, arguing, and threatening as well as lying, stealing, setting fires and substance abuse (Loeber and Schamaling, 1985). Unfortunately these problems not only show high stability overtime but they also predict various other problems in adult life (Bardone, Moffit, Caspi, & Dickson, 1996). It has been regarded that among many factors involved, cognitive variables have played a central role in the maintenance and stability of antisocial behaviour overtime (Grick and Dodge, 1994; Huesman & Guerra, 1997).

In recent study comparing early-onset , late onset delinquent s and non-offending youths, each offender was significantly more impulsive than non offenders(Carrol and Colleagues (2006), conforming to the studies that impulsiveness as reliable indicator of delinquent behaviour (Daderman, 1999: Caspi et al, 1994).

Both an Ontario study (Blum, Boyle & Offord,1988) and the National Longitudinal Survey of Children and Youth (Lipman, Offord & Dooley,1996) report that children are four to 11 from single parent homes have significantly higher rates of behavioural problems and are more likely to have poor school performance than children from two-parent families. Again, these findings are consistent with those of American research (Haveman & Wolfe.1995). Many children in poverty face problems that present barriers to their learning (Books, 2004; Cooter, 2004; Parke & Buriel, 2006). Children of teenage mothers often experience school failures and poor life outcomes, including repeated grades, remedial classes, school suspensions, high levels of delinquent behaviour, substance abuse, violence, incarceration, and early childbearing (Seitz, 1996). They are more likely to experience abuse or neglect, and to drop out of High school (Mauldon, 1998).They are also more likely to be teen parents themselves (Brooks-Gunn & Chase-Lansdale, 1995; Brooks-Gunn & Furstenburg, 1986; Furstenberg, Hughes, &Brooks-Gunn, 1992).

Stepping back and letting delinquent students to “figure it out” or “take responsibility for their own learning” may lead to a deeper cycle of failure within the school environments. Loeber (1987) reported that as many as 50% of elementary-school children have engaged in theft and as many as 37% of boys have been involved in physical assault. Based on self-report data from an American sample of 748 children aged 11 to 12 years Richards, Berk, and Foster (1979) found that 22% had defaced property, 9% had damaged property, 5% had been truant, 3.9% had used marijuana, and 1.5% had stolen a bicycle.

Research on the nature of conflict within parent–child relationships has traditionally focused on two developmental periods, early childhood and early adolescence. Parent–child conflict across the toddler and early preschool years is often frequent and an important arena for children's socialization (Dunn & Slomkowski, 1992). Similarly, early adolescence is often a time of increased emotional and physical distancing from parents (Paikoff & Brooks-Gunn, 1991; Steinberg, 2001), as well as a time during which the frequency and affective intensity of parent–child conflicts may be higher than at other ages (Laursen, Coy, & Collins, 1998). Despite a growing literature on families of different ethnic and economic backgrounds (Cauce, Hiraga, Graves, & Gonzales, 1996; Conger, Ge, Elder, Lorenz, & Simons, 1994; Fuligni, 1998; McLoyd & Smith, 2002; Smetana & Gaines, 1999), few investigations of parent–child conflict have focused on identifying whether culturally based behaviours impact conflict differentially by ethnic or racial group. In the present investigation, it was to examine the intergeneration conflicts in Mizo to determine whether conflict varies on different parenting styles.

Children who enter adolescence with more conflictual relationships are prone to greater risk for more severe parent–child problems and poorer child outcomes during adolescence (Steinberg, 2001). In prior studies, both positive and negative emotional expressions and conflicts were more common in mother–child than in father–child interactions (Russell & Russell, 1987), a pattern that persists into adolescence (Collins & Laursen, 1992). Because mothers and daughters typically experience close, interdependent relationships, this dyad may be particularly prone to conflict when attempts to integrate individual goals and

behaviours (while maintaining the close relationship) are put forth. However, very few investigations have examined mother–daughter interactions among families especially among preadolescent girls.

Many researchers have suggested that the changes in parent–child relationships that occur between late childhood and early adolescence are instigated by children's growing desire to increase their sense of autonomy and independence as children become less satisfied with parents' authority over their personal lives as they mature (Smetana, 1989). If conflict in parent–child relationships is linked to autonomy and perceptions of parental authority, then conflict may have a cultural determinant (Fuligni, 1998).

It has been suggested that within African American families, an extremely high value is placed on respecting, obeying, and learning from elders in the kinship network and community (Willis, 1992), parents indicated that they viewed conflicts with children in terms of respect for parents, obedience to authority, and the importance of cultural traditions (Smetana & Gaines, 1999; Smetana, Crean, & Daddis, 2002). In contrast, the young adolescents primarily viewed conflicts as issues of personal jurisdiction, that is, personal issues or individual concerns. Thus, different perceptions of conflict by parents and adolescents may have contributed to conflict in these families and the same value is prevailing in Mizo traditional parenting. Respect has been defined in terms of showing honor and esteem to authority figures and elders or deferring to a senior's greater command of pertinent skills (Briggs, 1986) but those conflicts were relatively frequent, were low in intensity, and occurred over everyday, mundane issues. Other researchers have noted that African American adolescent girls and their mothers reported conflicting expectations for autonomy and closeness that stem from the hope that daughters will grow up self-reliant yet retain the expected loyalty and attachment to family and community (Cauce et al., 1996).

Fuligni (1998) asked adolescents of different cultural backgrounds whether they thought they should argue with their parents when they disagree. Non-European teenagers (Mexican and Philipino) were the least willing to openly contradict their parents; in addition, Latino adolescents felt that it was inappropriate to argue with or talk back to parents. Despite these attitudinal

differences, adolescents reported similar levels of conflict and cohesion with their parents. It may be that ethnic differences in conflict, if they exist, are more likely to occur for parents as they may place greater value on obedience and respect for authority than children do.

Along with potential differences in children's behaviours in parent–child interactions, it has been shown that there are cultural differences in parent behaviours, which can also have an effect on parent–child relationships and interactions; within the same culture variation in parenting can happened due to moderating factors of urbanization, modernization and acculturation. Much of the parenting literature has focused on authoritative versus authoritarian parenting practices, with authoritative parenting behaviours including reasoning with their children about problems, encouraging independence, and using less physical punishment and authoritarian parenting behaviours including more focus on control, obedience, and use physical punishment (Baumrind, 1972; Darling & Steinberg, 1993). Historically, parenting practices of ethnic and minority families have been conceptualized as those of the "other" group, which are compared with the "standard" group, defined by practices of European American, middle-class parents (García Coll & Pachter, 2002). Authoritarian parenting practices have been found, in many studies, to be more common among ethnic minorities (e.g., García Coll et al., 1995; Jambunathan, Burts, & Pierce, 2000).

There has been increasing recognition that culture plays an important role in shaping human behaviour and viewed as patterns of behaviours are transmitted among members of a society, comprises the rules and norms that promote stability and harmony within that society (Rogoff, 2003). Culture has been shown to affect many domains of family life including the way in which parents socialize their children (Harrison, Wilson, Pine, Chan, & Buriel, 1990; Kagitçibasi, 1996; Ogbu, 1994). In addition to traditional family beliefs within one's culture, factors such as social class, racism, prejudice, discrimination, acculturation, and family structure also influence parenting and child socialization (García Coll et al., 1996). The goal of the present study was to examine parenting, child behaviour, and the relationship between these two domains in different 'ecology', 'gender and 'age

group' samples of Mizo. Specifically, this study examines the relationship of parenting styles with youth problems and level of intelligent.

It was expected that different 'ecology', 'gender' and 'age group' samples to hold different parenting styles across the groups studied. The relationship between parenting has been well documented and the outcomes are aggression and negative social-emotional outcomes (Nix et al., 1999), —depression and anxiety (Simons, Whitbeck, Beaman, & Conger, 1994; Weiss, Dodge, Bates, & Pettit, 1992), that depression and anxiety depend on parenting in middle-class European American / Canadian children and parents (Ge, Best, Conger, & Simons, 1996; Steinberg, Dornbusch, & Brown, 1992), the picture appears to be more complicated when the influence of culture is considered. The family ecologies of culturally diverse children may differ somewhat from those of European American/Canadian children and may result in differential relationships between parenting and children's outcomes (Chao, 1994, 2001; Kagitçibasi, 1996).

Some studies suggest that supportive and nonpunitive parenting is similarly predictive of good psychosocial outcomes for children from all ethnic and cultural groups (Rowe, Vazsonyi, & Flannery, 1994), other studies suggest differential relationships across ethnic groups. Such differential relationships may be influenced by the cultural meaning of parenting behaviours or the challenges and opportunities afforded to particular cultural groups (Chao, 1994; Deater-Deckard, Dodge, Bates, & Pettit, 1996; Harkness & Super, 1995). That is, different cultural ecologies may differentially impact upon the expression, perception, and interpretation of similar behaviours across cultures resulting in varying relationships between parental harshness and child outcomes. To help understand differences in cultural ecologies that may lead to variations in parenting and children's outcomes; and the traditional child-rearing attitudes, values, and practices that characterize the cultural groups examined as well as the larger cultural environment that affect children's development.

García Coll et al. (1996) suggested that discussions of minority child development should include not only traditional cultural variables such as family values and traditions, socioeconomic status, and acculturation but also the broader context within which culture exists—namely, social stratification variables such as

social class, racism, prejudice and discrimination, economic and psychological segregation, and cultural history (García Coll et al., 1996). In this larger framework, parenting can be understood as a function of "an adaptive culture—a mix of history, traditions, and adaptive responses to present contextual demands—and not solely as individual patterns of interactions" (García Coll et al., 1996).

Differences in parenting, child outcomes, and their relationship may then be a reflection of variations in the parenting styles and practices which are considered effective within one cultural context may not be as adaptive within another cultural milieu that does not share the same reference or meaning system (Kagitçibasi, 1996; Ogbu, 1994). Consequently, the relationship between parenting and children's outcomes may differ as a function of cultural membership. Whereas parenting in some cultures (e.g., East Asian Canadian, South Asian Canadian, and Caribbean Canadian) involves strict control of and high expectations for children's behaviour (Chao, 1994; Feghali, 1997; Hill & Bush, 2001), other cultures (e.g., European Canadian, Native Canadian) may be less strict (Chandler, Lalonde, Sokol, & Hallett, 2003; Julian, McKenry, & McKelvey, 1994). The present study employed the Parenting Inventory (Steinberg 1990; Steinberg et al., 1989 & 1991) consisting 22-item scale with three factors of Parent's acceptance/involvement, strictness/supervision, and Psychological autonomy granting.

Social position variables such as education and income may lead to adequacy in providing effective parenting. Some cultures, particularly immigrants within Western industrialized nations, often experience higher levels of socioeconomic disadvantage (Beiser, Hou, Hyman, & Tousignant, 2002; McLoyd, 1990) than other cultural groups, and same difference may happened between urban and rural family among the Mizo. . It is also the case that different cultural groups vary on family demography (e.g., mother-led families are more common in African American and Native American cultures; McCreary & Dancy, 2004). Both lower socioeconomic status and single parenthood have been linked to higher levels of behavioural problems in children (Hetherington & Clingempeel, 1992; Huston, McLoyd, & Garía Coll, 1994) and more negative parenting (Conger et al., 1992; Hoff-Ginsberg & Tardif, 1995; Jenkins, Rasbash, & O'Connor, 2003). Consequently, group differences in parenting and child behaviour as a function of culture may be

attributable to socioeconomic and demographic factors rather than cultural influences per se. Today, most researchers agreed that heredity does not wholly determine intelligence (Gottlieb & Blair, 2004; Gottlieb, Washlsten, & Lickliter, 2006) and believed that modifications in environment can change their IQ scores considerably (Cambell & others, 2001). Although genetic endowment may also influence a person's intellectual ability, the environmental influences and opportunities provided children and adults to make differences'

Studies have found significant correlation between socioeconomic status and intelligence (Seifer, 2001). The way that parents communicate with children, the support parents provide, the neighborhood in which families live and the quantity of schools may contribute to these correlations. Schooling also influences intelligence (Ceci & Gilstrap, 2000; Christian, Bachnan, & Morrison, 2001). The biggest effects have been found when large group of children's have been deprived of formal education for and extended period, resulting in lower intelligences. One study examined the intelligence of the children's in South Africa whose schooling was delayed for four years because teachers were not available (Ramphal, 1969). Another possible effect of education can be seen in rapidly increasing IQ test scores around the world (Daley & others, 2003; Flynn, 1999).

Acculturation that defined as changes resulting from prolonged contact with another culture (Williams & Berry, 1991), often entails changes in behaviour, values, and identity. Acculturative stress may occur as immigrants identify with either their culture of origin or with the host culture, or strive to incorporate components of both cultures (Ryder, Alden, & Paulhus, 2000). As a number of studies have demonstrated, immigrants who choose to participate within the broader culture may rapidly take on the values and behaviours of the host culture (Hicks, Lalonde, & Pepler, 1993) that can have more consequence on behavioural change. So, It was expected that the same result may happened among the Mizo who have been witnessing social and cultural changes from primitive culture to modernization along with mainstream culture in the course of acculturation. Taking leads from the vast theoretical and methodological foundations already laid, it was felt that differential parenting will have different outcome on adolescent's

behaviour in Mizo, and frame objectives in accordance with this expectation for the present study.

Williams and Berry (1991) have indicated that minority culture (refugee youth) may be at risk for substance abuse, delinquency, depression, and psychopathological problems. Additionally, the transitory nature of immigrant families' poverty (DeVoretz, 1995) is not necessarily accompanied by the negative effects of persistent poverty (e.g., ineffective parenting, family discord, and parental depression) that may be experienced by majority culture families and long-term immigrant families. Although several studies in the United States have found an association of longer length of residence with declining health and academic outcomes for immigrant children (Suárez-Orozco & Suárez-Orozco, 1995, 2001), it may be that specific factors (e.g., governmental policies, health care, discrimination, etc.) that differ between Canada and the United States combine in ways that lead to different outcomes for immigrant families in Canada. Families of European background are characterized by an authoritative parenting style (Julian et al., 1994). Parents aim to strike a balance between demanding that their children behave appropriately and responding to their children's needs. They set standards for behaviour and consistently monitor their children's conduct, using nonpunitive methods of discipline when rules are broken. Among European American parents, the authoritative parenting style has been found to be associated with positive child outcomes (Ge, Best, Conger, & Simons, 1996; Nix et al., 1999; Rowe et al., 1994), whereas harsh and controlling parenting, including the use of physical discipline (e.g., spanking or hitting) is linked with negative child outcomes (Simons et al., 1994; Weiss et al., 1992). In comparison with the other groups examined, European Canadian families compose the largest percentage of the larger host culture and have had the longest history within this broader culture. These two factors generally allow these families to obtain high levels of education and household income—both of which are associated with positive parenting and child outcomes. This group faces fewer obstacles to social class and less racism, prejudice, and discrimination than other cultural groups. African American children have been found to be at higher risk of internalizing and externalizing symptomatology compared with European American children (Deater-Deckard et al., 1996), this is thought to be the result of persistent racial prejudice,

discrimination, and economic loss (Allen & Mitchell, 1998; Chase-Lansdale & Gordon, 1996) in the macro context.

A variety of factors such as socioeconomic status, family structure, and maternal age can either directly or indirectly affect the quality of family relationships and, more specifically, parent–child relationships (e.g., Conger et al., 1994; McLoyd, Jayaratne, Ceballo, & Borquez, 1994). Previous literature has noted the importance of considering between-group variation while recognizing variance within specific cultures (Markus, Steele, & Steele, 2002; Takahashi, Ohara, Antonucci, & Akiyama, 2002). At the same time, many cultures emphasize respect for elders and connectedness in family relationships, and, hence, these issues can be examined in part via group comparisons. Despite the fact that cultural beliefs such as respect for parental authority are thought to be important in family relationships, as Harrison, Wilson, Pine, Chan, and Buriel (1990) have pointed out, empirical studies have rarely been conducted to determine whether families indeed hold these values and whether these belief systems influence members' relationships with one another.

Keeping in view the importance of parenting on adolescent behaviour and lack of conclusive studies relating on it, it was thought worthwhile to undertake the present study. From the above discussion, the proposed research scheme is primarily concerned with the questions of Psychic unity of mankind and time differences. Hence, it is designed to elucidate the differential effects of their variables of ‘age’, ‘gender’ and ecology (rural and urban) and to provide more insightful reasoning on the association between socialization and prevailing youth problems among Mizo adolescents.

The present study will be the first endeavor of academic pursuit into the psychological analysis of the effects of parenting on behavioural problems and cognition among Mizo adolescents. There is no any of empirical research and development in the subject pertaining to the population under the proposed study in Mizoram. In view of the foregoing theoretical considerations and empirical findings, the present study is designed to highlight the effects of parenting on behavioural problems and cognition among Mizo adolescents.

The present study was designed with the aim to determine the effects of parenting on behavioural problems and cognition among Mizo adolescents to meet the following objectives. The study aimed to elucidate the cause and effect relationship, in addition to the correlation inferences, by way of incorporating three–way classification of variables of 'Ecology', 'Gender' and 'Age' (independent measures) on the sub-scale/sub-factor measures Parenting Inventory, Youth Problems, Inventory, and Cognitive measures (RSPM) for the rural and urban, boys and girls and 'age-group' of 15-17, and 18-20 years, and whole samples. In the light of the studies, it was expected that the behavioural measures would find replicability in the project population-the Mizo adolescents. The participants and their families showing positive parenting would manifest fewer problems with less behavioural symptoms and better inter-personal relationship. The expectation with regards to the interaction effects of 'gender', 'ecology', and 'age' differences are exploratory in nature, but are expected in conformity to the independent effects of the main variables on measures of the dependent variables.

In view of the foregoing the study would venture to test the following hypotheses:

(1) Significant difference would be observed in youth problems in relation to gender, ecology and age variables.

(2) Intelligence influence would be manifested on youth problems among the groups of the subjects.

(3) Parenting of the youth will have effects on youth problems.

The findings of the present study on the various dimensions envisioned, would not only satisfy the academic pursuit and theoretical interest, but would go a long way in the explanation and proposition for development of intervention strategies that provide empirical foundations to the rehabilitations of the people involved. The methods and procedure as aimed to be corporate to achieve the objectives are outlined in the following chapter.

CHAPTER - III
METHODS AND PROCEDURES

***Sample*:**

360 Mizo Adolescents based on 'Gender' (180 boys and 180 girls), 'Ecology' (180 urban and 180 rural), and ' age' group (180 samples for the two age groups 13 to 15 years named as lower age group and 17 -19 years named as upper age group) were selected by following the multi-stage-sampling procedure to served as participants for the present study. The two ecological comparision groups of subjects with differing ecological backgrounds were identified considering the primary objectives of the study on acculturation. This was done by taking lead from the previous findings of Zokaitluangi (1997) who identified low, moderate and high levels of regional development in Mizoram based on quantitative index, wherein the then Aizawl town emerged to be highly developed, followed by Lunglei district, and the least level of development in Serchhip district.

The first group of subjects referred to as 'Rural' residents is randomly drawn from villages of Serchhip district of Mizoram indicating the lowest level of development as compared to Aizawl, capital of Mizoram state of India; and the second group of subjects referred to as 'Urban' residents is randomly sampled from Aizawl (the capital of Mizoram) served as ***'Ecology'*** under main designed of the study. The boys and girls subjects form the two representative groups under the independent variable of '***Gender***' in the main design of the study were selected from the mentioned Ecological settings – Serchhip and Aizawl District which were having different level of development. Finally, third main design of the ***'Age'*** group was selected among the Mizo adolescent students ranging in age from lower age group (13 to 15 years) and upper age group (17 to 19 years) served as subjects for the final conduct of the study. The respondents under each of the eight groups (2 ecology X 2 gender X 2 age groups) were randomly sampled following the multi-stage sampling procedure keeping in view of the objectives of the present study. The background information of the participants such as age, birth order, educational qualifications,

employment status of the parents, the family structure (nuclear and joint), size of the family, space and other facilities available to each member of the family were recorded, with the objective to obtain truly representative sample for the present study.

Finally, 360 Mizo youth ranging in age from 13 to 19 served as subject for the final conduct of the study. The responses of large number of the subjects were screened out based on (i) the subject outside 13 to 19 years of age (ii) uncertainty of the general status as prescribed, and (iii) incomplete questionnaires.

Design:

The study incorporates three-way classifications of variables of '***Ecology***' (rural and urban), '***Gender***' (boys and girls) and '***age'*** group (lower and upper). Under each cell of the eight-cells of the main design (2 ecology x 2 gender x 2 age groups) with equal proportion of youth, 25 in each cell were included for psychoactive evaluation of the behavioral measures for the present study.

The relationships (product-moment coefficients) between the scales/sub-scales of the behavioral measures were computerized for the eight-cells of the main design to form the basis for factor analysis. Factor analysis was aimed with the objective to elucidate the clusters of behavioral components accounting for parenting and intelligence in relation to youth problems.

The study also aimed to elucidate the cause and effect relationship, in addition to the correlation inferences, by incorporating three-way classification of variables of '***Ecology***' (rural and urban), '***Gender***' (boys and girls) and '***Age-group'*** on the scales/sub-scales measures of PI, YPI and RSPM (measures of the dependent variables) were analyzed. For simple and easier comparision, the ANOVA and Fisher's LSD test were employed when it required, and substantial data were retained for further analysis. A series of regression analyses were computerized to check the predictability of '***Ecology***' (rural and urban), '***Gender***'

(boys and girls) and '***Age-group'*** (lower and upper age) on the behavioral measures.

In the final count, the target research problem focused on "A Study of the Effects of Age, Gender, and Ecology on Parenting, Behavioural Problems and Cognition among Mizo Adolescents"**.**

To meet the objectives of the research scheme, as envisioned in the foregoing, a factorial design with three-way classification of variables is proposed. In essence, the overall considerations of the experimental design may be diagrammatically presented as follows:

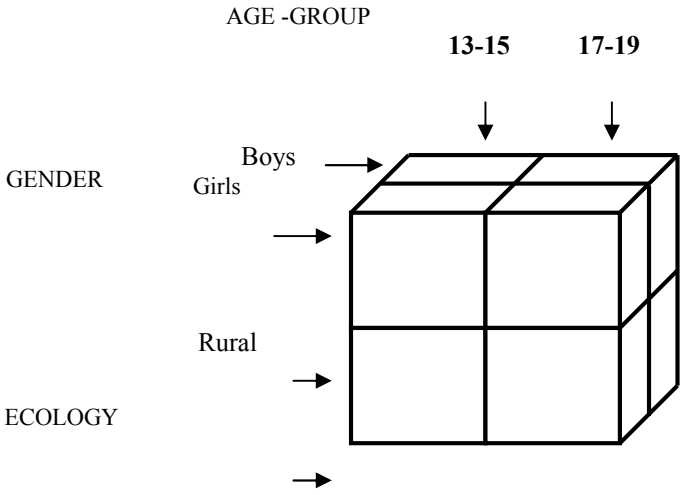


Figure -1: The proposed 2 x 2 x 2(2 ecology x 2 gender x 2 age group) factorial designs to be employed in the present study.

The representations of subject's background regarding the age, birth order, educational qualifications, employment status of the parents, the family structure (nuclear and joint), size of the family, space and other facilities available to each member of the family were explained with the help of pie charts (Figure – 2 to 6) and Tables – 1 to 5) as under:

Table – 1: Showing the representation of the different levels of academic achievement of the subject for the whole samples.

Academic achievement		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	196	54.4	54.4	54.4
	2.00	108	30.0	30.0	84.4
	3.00	51	14.2	14.2	98.6
	4.00	5	1.4	1.4	100.0
	Total	360	100.0	100.0	

Figure – 2: Showing the representation of different levels of academic achievement of the subject under study.

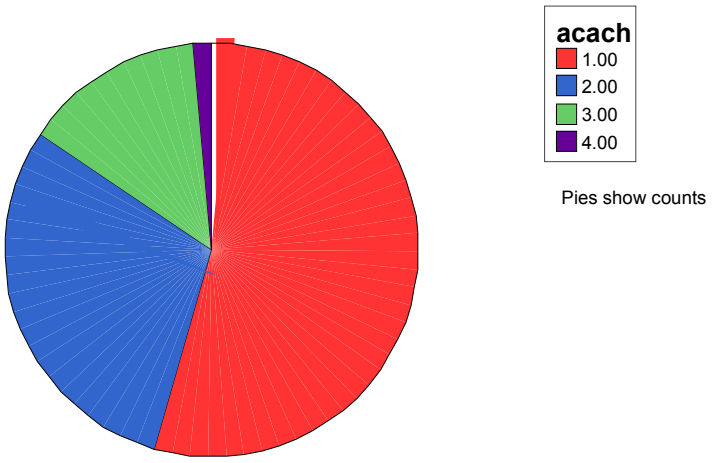


Table – 2: Showing the representation of different birth order of the subject for the whole samples.

Subject's birth order		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	119	33.1	33.1	33.1
	2.00	82	22.8	22.8	55.8
	3.00	75	20.8	20.8	76.7
	4.00	50	13.9	13.9	90.6
	5.00	15	4.2	4.2	94.7
	6.00	8	2.2	2.2	96.9
	7.00	6	1.7	1.7	98.6
	8.00	2	.6	.6	99.2
	9.00	3	.8	.8	100.0
	Total	360	100.0	100.0	

Figure - 3: Showing the representation of different birth order of the subject for the whole samples.

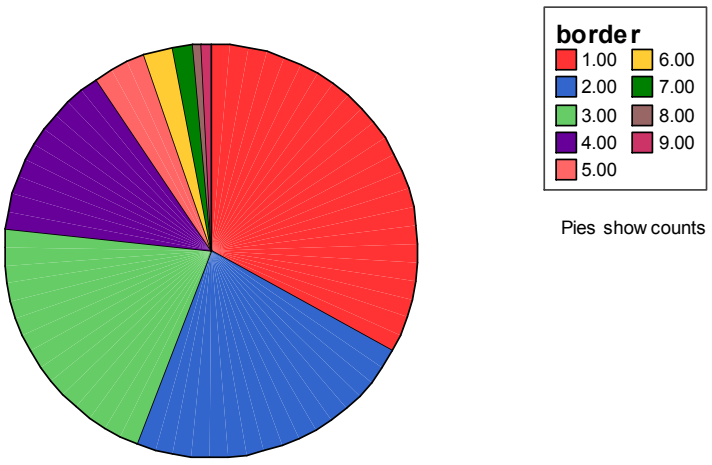


Table – 3: Showing the representation of different levels of age of the subject for the whole samples.

Age in years		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12.00	7	1.9	1.9	1.9
	13.00	48	13.3	13.3	15.3
	14.00	76	21.1	21.1	36.4
	15.00	45	12.5	12.5	48.9
	16.00	21	5.8	5.8	54.7
	17.00	66	18.3	18.3	73.1
	18.00	79	21.9	21.9	95.0
	19.00	18	5.0	5.0	100.0
	Total	360	100.0	100.0	

Figure - 4: Showing the representation of different levels of age of the subject for the whole samples.

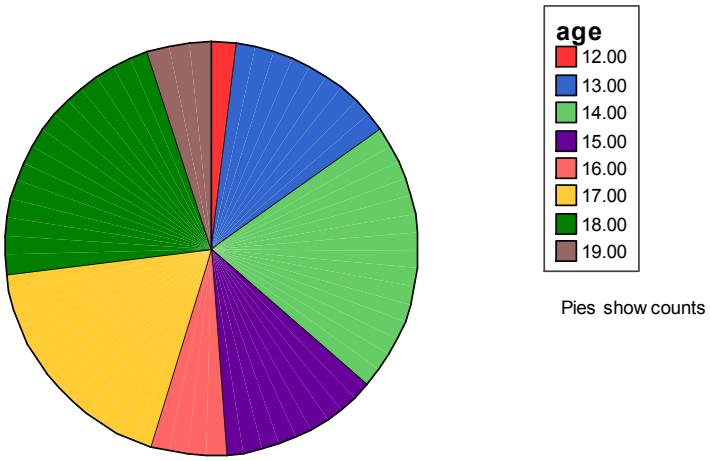


Table – 4: Showing the representation of different family size of the subject for the whole samples.

Subject's Family size		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	1	.3	.3	.3
	3.00	9	2.5	2.5	2.8
	4.00	26	7.2	7.2	10.0
	5.00	81	22.5	22.5	32.5
	6.00	100	27.8	27.8	60.3
	7.00	64	17.8	17.8	78.1
	8.00	32	8.9	8.9	86.9
	9.00	23	6.4	6.4	93.3
	10.00	16	4.4	4.4	97.8
	11.00	3	.8	.8	98.6
	13.00	2	.6	.6	99.2
	16.00	2	.6	.6	99.7
	25.00	1	.3	.3	100.0
	Total	360	100.0	100.0	

Figure - 5: Showing the representation of different family size of the subject for the whole samples.

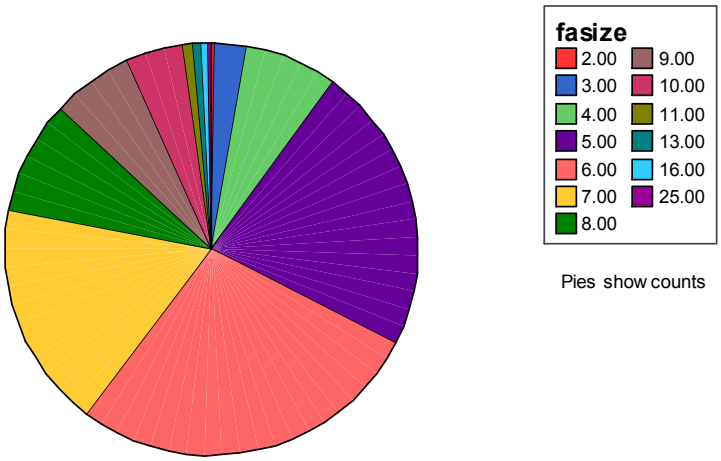


Table – 5: Showing the representation of different number of sibling of the subjects for the whole samples.

Number of siblings		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	14	3.9	3.9	3.9
	2.00	31	8.6	8.6	12.5
	3.00	92	25.6	25.6	38.1
	4.00	119	33.1	33.1	71.1
	5.00	47	13.1	13.1	84.2
	6.00	30	8.3	8.3	92.5
	7.00	17	4.7	4.7	97.2
	8.00	5	1.4	1.4	98.6
	9.00	2	.6	.6	99.2
	10.00	2	.6	.6	99.7
	11.00	1	.3	.3	100.0
	Total	360	100.0	100.0	

Figure - 6: Showing the representation of different number of sibling of the subjects for the whole samples.

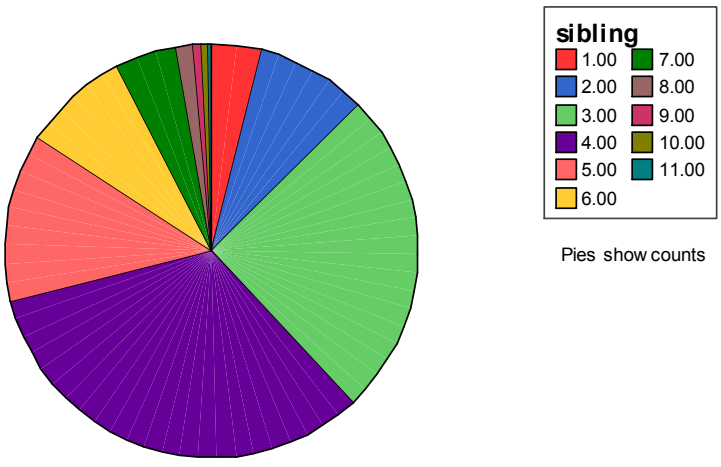


Table – 6: Showing the representation of different nature of family of the subject for the whole samples.

Nature of family		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Joint family	337	93.6	93.6	93.6
	Nuclear	23	6.4	6.4	100.0
	Total	360	100.0	100.0	

Table – 7: Showing the representation of father's occupation of the subject for the whole samples.

Father's occupation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	199	55.3	55.3	55.3
	2.00	161	44.7	44.7	100.0
	Total	360	100.0	100.0	

Table – 8: Showing the representation of mother's occupation of the subject for the whole samples.

.Mother's occupation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	308	85.6	85.6	85.6
	2.00	52	14.4	14.4	100.0
	Total	360	100.0	100.0	

Table – 9: Showing the representation of different educational qualification of the subjects for the whole samples.

Subject's educational qualification		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	180	50.0	50.0	50.0
	2.00	180	50.0	50.0	100.0
	Total	360	100.0	100.0	

The Psychological tests:

(1) **Parenting inventory** (PI: Steinberg, 1990; Steinberg et al., 1989 & 1991). The Parenting Inventory (Steinberg 1990; Steinberg et al., 1989 & 1991) is a 22-item scale with three factors of

(a) Parent Involvement (Pi) that is similar to Permissive style of parenting that parental responsiveness (also referred to as parental warmth or supportiveness) refers to "the extent to which parents intentionally foster individually, self-regulation, and self-assertion by being attuned, supportive, and acquiescent to children's special needs and demands" covering the emotional responsiveness of parent (Baumrind,1991).

(b) Psychology Autonomy Granting (Pag) which is similar to the Authoritative type of Parenting (Boumarind, 1991) specifying the strictness/supervision of parent.

(c) BC, (Behavioral Control) that is similar to Authoritarian type of Parenting. It is a parental demandingness refers to "the claims parents make on children to become integrated into the family whole, by their maturity demands, supervision, disciplinary efforts and willingness to comfort the child who disobeys" (Baumrind, 1991).

It is a four point Likert-type scale (strongly agree, somewhat agree, somewhat disagree and strongly disagree). The Parenting Style Inventory was designed to assess the construct of parenting style independently of parenting practice. Based upon previous literature (Schaeffer, 1965; Steinberg, Elmen, & Mounts, 1987), three subscales, of five items each, were developed to assess the three dimensions of maternal parenting style: Behavioural Control (demandingness), emotional responsiveness, and psychological autonomy-granting. Although initial liability of the tests in samples of high school seniors and college students yielded acceptable levels of reliability demandingness, "=.69; responsiveness, "=.87; autonomy-granting, "=.82), tests of the measure in a population of 7th graders). Smetana and Daddis (2002) defined behavioral control as "rules, regulations, and

restrictions that parents have for their children" and psychological control as "parents' attempt to control the child's activities in ways that negatively affect the child's psychological world and thereby undermines the child's psychological development" (p. 563).

(2) **Youth Problem Inventory** (YPI: Verma, 1971). The test consists 75 items measuring different areas of Youth Problems viz (1) Factor A: *Family Problems, (2) Factor B : School/College Problems, (3) Factor C: Social Problems and (4) Factor*

C: Personal Problems over Sensitivity. Each item carries four response choices; partially true, entirely true, partially untrue and totally untrue Problems of youth may be summarized in four areas (Verma, 1971).

(A) Family Problems (Factor –A) including parenting indifference, parent strict supervision and lack of freedom, criticism and lack of recognition by parents, demands by family, interference, parental dominance, maintenance of difference between sons and daughters, rejection from parents, fear of parents, projection by parents, lack of affiliation, over-dependence on parents, inter-generation gap in ideology and sibling relations.

(B) *School/College Problems(Factor-B)* which includes fear of college activities, fear of teachers, rejection and indifference by teachers, incompetence of teachers, harsh, rude and sarcastic behaviour of teachers, isolation, difficulties in school/college subjects and other handicaps at school/college.

(C) *Social Problems* (Factor-C) which includes social inferiority and social isolation.

(D) *Personal Problems and Over Sensitivity* (Factor-D) including illogical fear, depressions, health and constitution, beauty consciousness, manners and habits, present and future career, personal handicaps, frustrations and, feelings of failure and inferiority. The inventory was constructed for more efficient group methods to identify problems of youth and thus it is economical, and the purposes are: to discriminate youth based on problems they are facing, to identify exact problems, to

screen student for counseling purposes or personal help, to make young people to know their problems, to enable parent and teacher to understand their children, to indicate differences in problems of youth and pupil of other age groups, to indicate associated problems and to know adjustment strategist of youth with their anxiety. It contained 80 statements belonging to four areas of problems such as 9i) Family problems consists 14 problems, (ii) School/ college problems 8 problems, (iii) Social problems-2, and (iv) personal problems-9.

3**) Raven's Standard Progressive Matrices** (RSPM: Raven et.al.1992). The test consists of 5 sets having 12 problems each. It is made up of five sets, or series, of diagrammatic puzzle has a part of missing, which the person taking the test has to find among the options provided. The scale consists of 60 problems divided into five Sets (A, B, C, D, and E), each made up of 12 problems and assessment of a person's capacity for intellectual activity. It was designed to cover the widest possible range of mental ability and to be equally useful with persons of all ages, whatever their education, nationality, or physical condition, and internationally accepted.

There are three earlier Ravens Progressive Matrices before RSPM, first and most widely used of three instruments known as the Raven's Progressive Matrices, the other two being the Coloured Progressive Matrices (CPM) and the Advanced Progressive Matrices (APM). All three tests are measures of Spearman's g.

This RSPM measures intellectual level of the cognitive abilities of the subject. The Standard Progressive Matrices test was constructed to measure the educative component of '**g'** as defined as Spearman in his theory of cognitive ability. It is the ability to forge new insights, the ability to perceive, and the ability to identify relationship. Since perception is primarily a conceptual process, the essential feature of educative ability is the ability to generate new, largely non verbal, concepts which make it possible to think clearly. The reproductive ability is the ability to recall and use a culture's store of explicit verbalized concepts. It measures by the mill hill vocabulary test. The two abilities are to the wider concepts of intelligence. It is used in home, school, and workplace as well as in laboratory. It is short, attractive, robust and valid test. A person's maximum capacity for clear

thinking has been found to vary with health and to improve with practice less than the speed of accurate intellectual work. For anthropological genetic and clinical studies, an untimed ‘capacity’ test is therefore more useful than a test in which a person is working against time. The SPM is more useful for vocational guidance, occupational selection as it provided fine discrimination of people on ground of cognitive abilities. It can be administer in individual condition as well as in group condition.

The SPM consists of 60 items arranged in five sets (A, B, C, D, & E) of 12 items each. Each item contains a figure with a missing piece. Below the figure are either six (sets A & B) or eight (sets C through E) alternative pieces to complete the figure, only one of which is correct. Each set involves a different principle or "theme" for obtaining the missing piece, and within a set the items are roughly arranged in increasing order of difficulty. The raw score is typically converted to a percentile rank by using the appropriate norms.

Internal consistency studies using either the split-half method corrected for length or KR20 estimates result in values ranging from .60 to .98, with a median of .90. Test-retest correlations range from a low of .46 for an eleven-year interval to a high of .97 for a two-day interval. The median test-retest value is approximately .82. Coefficients close to this median value have been obtained with time intervals of a week to several weeks, with longer intervals associated with smaller values. Raven provided test-retest coefficients for several age groups: .88 (13 yrs. plus), .93 (under 30 yrs.), .88 (30-39 yrs.), .87 (40-49 yrs.), .83 (50 yrs. and over).

Validity: Spearman considered the SPM to be the best measure of g. When evaluated by factor analytic methods which were used to define g initially, the SPM comes as close to measuring it as one might expect. The majority of studies which have factor analyzed the SPM along with other cognitive measures in Western cultures report loadings higher than .75 on a general factor. Concurrent validity coefficients between the SPM and the Stanford-Binet and Weschler scales range between .54 and .88, with the majority in the .70s and .80s.

Norms: Norm groups included in the manual are: British children between the ages of 6 and 16; Irish children between the ages of 6 and 12; military and civilian subjects between the ages of 20 and 65. A supplement includes norms from Canada, the United States, and Germany. The Standard Progressive Matrices (SPM) is a group or individually administered test that nonverbally assesses intelligence in children and adults through abstract reasoning tasks. It is sometimes called Raven's, although the SPM is only one of three tests that together comprise Raven's Progressive Matrices. Appropriate for ages 8-65, the SPM consists of 60 problems (five sets of 12), all of which involve completing a pattern or figure with a part missing by choosing the correct missing piece from among six alternatives. Patterns are arranged in order of increasing difficulty. The test is untimed but generally takes 15-45 minutes and results in a raw score which is then converted to a percentile ranking. The test can be given to hearing- and speech-impaired children, as well as non-English speakers. The Standard Progressive Matrices is usually used as part of a battery of diagnostic tests, often with the Mill Hill Vocabulary Scales. The SPM is part of a series of three tests (Raven's Progressive Matrices) for persons of varying ages and/or abilities, all consisting of the same kind of nonverbal reasoning problems. The SPM is considered an "average"-level test for the general population.

Tests of inductive or analytic reasoning--what Cattell (1963) referred to as fluid intelligence--are said to estimate one's ability to solve problems without relying on an explicit base of knowledge derived from previous experience (Carpenter, Just, & Shell, 1990). Not only are such tests considered to be measures of specific forms of higher order cognitive abilities, but these tests are also considered to be among the best single indexes of general intelligence (Stough, Nettlebeck, & Cooper, 1993. For these reasons, tests of fluid intelligence have enjoyed wide use in both applied and research settings. Of such tests, Raven's Progressive Matrices tests (Raven, Raven & Court, 1991) have been among the most popular (Arthur & Woehr, 1993).

Procedure:

The subjects were tested by using - 1) Parenting inventory (PI: Steinberg, 1990; Steinberg et al., 1989 & 1991), 2) Youth Problem Inventory (YPI: Verma, 1971), and 3) Raven's Standard Progressive Matrices (RSPM: Raven et.al.1992).

The subjects were tested in classroom settings in the presence of the researcher, The Parenting inventory and the Youth Problem Inventory were administered in group condition and conducted in the classroom whereas the RSPM was administered individually where external disturbances were under controlled. The researcher describes the purpose of the study with the needful instructions carefully, and distributes the questionnaires, then gives test of trail with due care instructions that the subjects have to complete the whole questions. The actual administration of the test followed, all the incomplete questionnaire were checked out at the spot and request the same subject to complete if incomplete answer sheet was found. The researcher himself conducted the test administration and travels to various rural areas to collect the data of the rural youths (adolescents).

***Statistical analyses**:*

The Statistical Analysis of data was made and the psychometric analyses of behavioral measures shall include the analyses of:

The Statistical Analysis of data will be made from four angles. Psychometric analyses of behavioral measures shall include the analyses of: (i) *item-total coefficient of correlation* (and the relationship between the specific items as index of internal consistency); (ii) reliability coefficient (*Cronbach alpha and split-half reliability*); (iii) relative interdependence *(inter-scale relationship);* and *(iv) predictive validity* (by highlighting gender, ecological and age group differences) on the scale/sub-factor measures of the behavioral gamut.

Researches in the field of cross-cultural psychology have identified that psychological scales that have been standardized and validated for measuring theoretical constructs (for a given population) may not be treated as reliable and valid for comparability in another population unless specific checks are

made. Moreover, cross-cultural research is based on the assumption that the data obtained from each culture is equivalent and the study is free of systematic bias (Poortinga, 1989). The instruments must measure the same construct in different cultures; the relevant behaviors and their constituent behavioral domains must be adequately sampled across cultures; and the results must not be biased in some cultures as a result of differential social desirability and response styles (van de Vijver & Poortinga, 1997; van de Vijver & Leung, 1997). This fact is the foundation for the preliminary psychometric analyses, which is expected to provide theoretical and methodological foundations for the measurement of the theoretical construct(s), and to find empirical base for comparability of the test scores.

The coefficient of correlation matrix between the sub scale/sub factor measures of behavior gamut shall be computerized in an effort to elucidate the cluster(s) of behavior gametes that would be accounted for the socialization correlates of Youth problems. The Data analyses shall incorporate:

(a) **In descriptive statistics**, the nature of the distribution will be assessed and if required transformation of scores will be made for making the skewed distribution normal. In addition, various graph and charts will be displayed for easy understanding of the data.

(b) **Inferential statistics** would include mostly parametric test namely t-test and analysis of variance. However, if required, non parametric statistics can be used and test like Chi-square and Mann-Whitney U-test may be applied.

(c) **Multivariate technique** will be used for both dependent and inter-dependent variables. For dependent variable, multiple regression analyses could be used and for inter-dependent variable, principal component factor analysis with varimax rotation can be applied. The MANOVA can also be applied for inter-dependent variables.

(d) **2x2x2 MANOVA** and post-hoc mean comparisons shall be computerized to determine the effects of ‘ecology’, ‘gender’ and ‘age-group’ on the sub scale/sub factor measures of the behavioral measures.

(e) ***item-total coefficient*** of correlation (and the relationship between the specific items as index of internal consistency) correlation matrix between the sub scale/sub factor measures of behavior gamut were computerized in an effort to elucidate the cluster(s) of behavior gametes that would be accounted for the s

(f) Finally, the effect of parenting on behavioral problems and cognition shall be highlighted by employing **ANOVA** with gender, ecology and age-group as the covariate socialization correlates of Youth problems.

The outcomes of the overall analyses are presented in the following chapters.

CHAPTER- IV

RESULTS AND DISCUSSION

Subject –wise scores on the specific items of the behavioural measures of

(1) **The Parenting Inventory** (Steinberg 1990; Steinberg et al., 1989 & 1991) is a 22-item scale with three factors of Parental involvement (Pi), Psychological Autonomy Granting (Pag) and Behavioural Control (BC),

(2) **Youth *Problem Inventory*** (PI: Verma, 1971) The test consisting different areas of Youth Problems viz. (A) *Family Problems, (B) School/College Problems, (C) Social Problems and (D) Personal Problems and over Sensitivity.*

(3) ***Standard Progressive Matrices*** (RSPM: Raven et.al,1992) consisting 5 sets having 12 problems each to measure *intellectual level* of the subject were separately prepared over the levels of analyses (for male and female, urban and rural, lower a ge group and upper age group of adolescent, and for the whole sample).

The preliminary psychometric analyses included (i) item-total coefficient of correlation (the relationship between the specific items with the sub-scales total as an index of internal consistency, (ii) reliability coefficient of correlation (Cronbach-alpha and split-half reliability) of the scales/sub-scales of the behavioural measures, (iii) inter-scale relationships, and (iv) predictive validity of the test scales (scales/sub-scales measures) by highlighting **'**Gender**'** (male and female), **'**Ecology**'** (rural and urban), **'**Age**'** groups (lower and upper age group) differences. By following the broad format of the preliminary psychometric analyses, the outcomes of results over the levels of analyses (for male, female, rural, urban, lower age, upper age group for the whole sample) are sequentially presented.

The supporting responses of the required information were also dissect on age, number of siblings, family size, nature of family and educational qualification

for measurement purposes in the project population of the Mizo under study were separately prepared for male, females, and whole samples.

Psychometric Properties of the Behavioural Measures

The preliminary psychometric analyses over the level of analyses for each of the specific items and scales/subscales are determined with the objectives to ensure further statistical analyses, and the results are presented sequentially.

The response matrix on measures of (a) *The Parenting Inventory (PI: Steinberg 1990; Steinberg et al., 1989 & 1991)*, (b) *Youth Problem Inventory (YPI: Verma, 1971*) and (c) *Standard Progressive Matrices (Raven et.al.1992)* were prepared and the psychometric adequacy for each behavioural measures were ascertained. The analysis of psychometric adequacy of the behavioural measures included: (i) item-total coefficient of correlation (and the relationship between specific items of sub-scale of each measure as an index of internal consistency), (ii) reliability coefficient (Cronbach alpha and split half reliability), and (iii) predictive validity by highlighting **'Gender'** (male versus female), **'Ecology'** (rural versus urban), **'Age'** group (lower and upper age) differences on each of the scale/sub-scale of behavioural measures. The reliability and validity analyses were computerized for males, female, and the whole sample in an effort to find consistency in results. Following the broad format of psychometric analyses, the results are presented under:

(1) The Parenting Inventory (Steinberg 1990; Steinberg et al., 1989 & 1991):

The item-total coefficients of correlation of Pi sub-scales PI, together with the reliability indices (Cronbach-alpha and split-half reliability) of Mizo adolescent (for males, for females, and for the whole samples) are put together in Table – 10.

Table – 10: Item-total coefficient of correlation, reliability coefficients and relationships between PI sub-scales (Pi, Pag and BC) over the level of analysis for males, for females and for the whole sample (males + females).

Pi **Items**	**Males (N=180)**	**Females (N=180)**	**Whole Sample (Males + Females) (N=360)**
1	54.30	56.17	54.30
3	53.74	55.58	53.74
5	54.37	56.18	54.37
7	54.74	56.46	54.74
9	54.38	56.16	54.38
11	53.73	55.52	53.73
13	54.33	56.25	54.33
15	54.95	56.73	54.95
17	54.38	56.13	54.38
19	28.76	29.72	28.76
Reliability coefficient			
Alpha	.72	.74	.74
Split half	.90	.82	.91
Pag items	**Males (N=180)**	**Females (N=180)**	**Whole Sample (Males + Females) (N=360)**
2	40.84	41.11	40.97
4	40.89	41.21	41.05
6	39.87	39.81	39.84
8	40.31	40.61	40.46
10	40.27	40.44	40.35
12	39.81	39.98	39.89
14	40.08	40.09	40.08
16	40.86	40.91	40.88
18	39.09	39.09	39.09
Reliability coefficient			
Alpha	.65	.66	.65
Split half	.73	.70	.71
BC items	**Males (N=180)**	**Females (N=180)**	**Whole Sample (Males + Females) (N=360)**
2	22.90	26.83	24.87
4	22.87	27.08	24.98
6	22.92	26.98	24.95
8	23.01	26.73	24.87
10	22.97	27.04	25.01
12	22.91	26.92	24.92
14	12.51	14.69	13.60
Reliability coefficient			
Alpha	.80	.83	.65
Split half	.73	.83	.71

The item-total coefficient of correlation of PI sub-scales (Pi, Pag and BC) together with the reliability indices (Cronbach-alpha and split-half reliability) of the sample (for males, for females, and for males and females) are put together in Table- 10.

Item-total coefficient of correlation and reliability indices emerged to be robust at each level of analysis (for males, for females and for the whole sample). The results revealed that the Cronbach's Alpha for the internal reliability of ranged from 0.65 to 0.83, and the Split-half reliability ranged from 0.70 and 0.91 for the three sub-scale of the PI. Results (Table – 10**)** that item-total coefficient of correlation of the students (N=360) emerged to be robust over each levels of analysis before screening. All the sub-scales of the PI (Pi, Pag and BC) achieved satisfactory alpha coefficients (in excess of 0.60), the level recommended for statistical analysis and this confirmed the trustworthiness of the test scales for measurement purposes in the project population under study.

The mean and standard deviation, item-total coefficient of correlation of PI sub-scales (PI, Pag and BC) together with the reliability indices (Cronbach-alpha and split-half reliability) of the sample for males, females, and whole samples are put together in Table-.11.

Table - 11: Mean, Standard Deviation, Item-total coefficients of correlation, Cronbach alpha reliability, Spearman-Brown reliability, range of inter item total coefficient correlation of PI for the male, female and for the whole samples (Male +Female).

Group	*Male (n = 180)*			*Female (n = 180)*			*Male + Female(N=360)*		
Sub scales	Pi	Pag	BC	Pi	Pag	BC	Pi	Pag	BC
Mean	28.76	18.52	29.72	29.72	18.59	12.04	29.24	18.54	11.27
SD	4.04	4.14	2.08	4.08	3.88	1.99	4.08	4.01	2.17
No of Items	9	8	5	9	8	5	9	8	5
Range	0.11-0.45	0.14-0.31	0.39-0.41	0.00-0.56	0.14-0.32	0.42-0.59	0.13-0.45	0.16-0.27	0.46-0.52
Cronbach's Alpha	0.58	0.52	0.65	0.66	0.51	0.72	0.63	0.50	0.72
Split-half	0.52	0.56	0.62	0.69	0.60	0.63	0.59	0.57	0.67

Item-total coefficient of correlation and reliability indices emerged to be robust at each level of analysis (for males, for females and for the whole sample). Cronbach's Alpha for the internal reliability of the PI ranged from 0.50 to 0.72. The split-half reliability ranged from 0.52 and 0.69. All the reliabilities were higher than .50 and this confirmed the trustworthiness of the test scales for measurement purposes in the project population. Here it was observed that the item-total coefficients of correlation and reliability indices were found to be robust at each level of analyses (for males, for females, and for the whole sample). The range of item total coefficient correlation was all acceptable level in all comparison groups (> .10).

Table – 12: Showing the Mean and SD values of the Pi subscale of the PI for 'Ecology', 'Gender'. and 'Age' group of the whole samples.

Ecology	Gender	Age	Source of variation	Parenting styles		
				Parental Involvement	Parenting autonomy granting	Behavioural control
RURAL	Male	Lower	Mean	27.54	17.90	10.32
			SD	4.52	3.73	2.13
		Upper	Mean	28.14	18.78	10.33
			SD	4.32	4.09	1.83
	Female	Lower	Mean	28.76	17.16	10.13
			SD	3.72	4.36	2.16
		Upper	Mean	30.56	20.04	11.24
			SD	2.90	3.88	2.09
URBAN	Male	Lower	Mean	28.44	17.51	11.76
			SD	4.18	4.07	1.72
		Upper	Mean	29.71	19.38	12.36
			SD	4.21	4.02	2.31
	Female	Lower	Mean	30.00	18.62	12.02
			SD	4.37	3.26	2.15
		Upper	Mean	30.71	18.98	12.02
			SD	3.25	4.19	1.75

Relationship between the sub-scales of the PI.

After ascertaining that the data generally met the requirements of the Pearson's Product-Moment correlation, Intercorrelation were worked out between the subscales of PI. The relationships between the sub-scales of the behavioural measures for males, for females and for the whole sample (males and females) are presented in Tables-13.

Table - 13: Item total Coefficient correlation (Pearson Correlation) over the level of analyses for the whole samples on the sub-scales of Parenting Inventory.

	Items	BCTT	PAGTT	PITT
Pearson Correlation	BC3	**0.68**	0.04	0.16
	BC4	**0.69**	0.03	0.29
	BC5	**0.73**	-0.06	0.22
	BC7	**0.65**	-0.09	0.32
	BC8	**0.68**	0.03	0.26
	PAG1	-0.11	**0.45**	-0.18
	PAG2	-0.17	**0.38**	-0.32
	PAG3	0.09	**0.52**	0.14
	PAG4	-0.05	**0.48**	-0.10
	PAG5	0.04	**0.50**	-0.06
	PAG7	0.07	**0.53**	0.11
	PAG8	-0.06	**0.50**	-0.25
	PAG9	0.11	**0.37**	0.06
	PI1	0.20	-0.05	**0.50**
	PI2	0.15	0.01	**0.35**
	PI3	0.13	-0.10	**0.48**
	PI4	0.18	-0.18	**0.55**
	PI5	0.19	-0.16	**0.63**
	PI6	0.09	-0.03	**0.25**
	PI7	0.18	-0.02	**0.44**
	PI8	0.31	-0.02	**0.62**
	PI9	0.17	-0.01	**0.60**
	BCTT	1.00	***-0.01***	0.36
	PAGTT	-0.01	1.00	***-0.13***
	PITT	0.36	-0.13	1.00

The correlation between the inter-subscale of Parenting Inventory as measured by Pearson's Correlation Test indicates that there was correlation between the sub-scales. As shown in the Table -12, the sub scale BC (Behavioural Control i.e. Authoritarian type of Parenting) correlated with each other and with the total scores; the lowest score is 0.65 whereas the highest score reached 0.73 and all of them were higher than 0.10. The sub scale Pag, (Psychological Autonomy Granting i.e. Authoritative type of Parenting) also correlated with each other showing the lowest score 0.37 and the highest score 0.53.The sub scale Pi, (Parental involvement i.e. Permissive type of Parenting) also show its correlation between them by scoring the range between 0.25 and 0.62. The result revealed substantial item total

coefficient of correlation (relationship between the items of the specific scales) for the three sub-scales of the PI for the whole samples. The item total coefficient correlations have shown negative low relationship one and other explaining the contribution of the sub-scales for measurement purpose.

The psychometric analysis confirmed the applicability and trustworthiness of the scale for measurement purpose of the behavioural variable in the projected population under study, and that substantiate to the finding of the Steinberg (1991).

(2) Youth Problem Inventory (Verma, 1971:

The item-total coefficients of correlation of Factor A of YPI sub-scales, together with the reliability indices (Cronbach-alpha and split-half reliability) of Mizo adolescent (for males, for females, and for the whole samples) are put together in Table – 14.

Table – 14: Item-total coefficient of correlation, reliability coefficients and relationships between **Factor- A** of YPI sub-scale over the level of analysis for males, for females and for the whole sample (males + females).

Factor A items	**Males (N=180)**	**Females (N=180)**	**Whole Sample (Males + Females) (N=360)**
1	40.29	39.35	39.82
2	40.34	39.36	39.85
3	39.83	38.93	39.38
4	39.96	38.87	39.41
5	40.13	39.08	39.61
6	40.10	39.18	39.64
7	40.27	39.46	39.86
8	40.24	39.35	39.80
9	39.96	38.87	39.41
10	40.24	39.25	39.75
11	40.12	39.19	39.66
12	39.54	38.67	39.10
13	39.98	39.04	39.51
14	39.16	38.03	38.59
15	40.06	39.01	39.53
16	39.16	38.13	38.64
17	39.79	38.84	39.32
18	40.34	39.43	39.88
19	40.23	39.33	39.78
20	40.04	39.08	39.56
21	39.92	39.09	39.51
22	39.99	39.11	39.55
23	39.25	38.18	38.71
24	38.96	37.99	38.48
25	39.77	38.77	39.27
26	40.30	39.42	39.86
27	39.41	38.12	38.76
28	39.52	38.32	38.92
29	39.58	38.71	39.15
30	40.14	39.24	39.69
31	40.32	39.41	39.86
Reliability coefficient			
Alpha	.85	.81	.84
Split half	.88	.84	.93

Table – 15: Item-total coefficient of correlation, reliability coefficients and relationships between **Factor - B** of YPI sub-scale over the level of analysis for males, for females and for the whole sample (males + females).

Factor B items	**Males (N=180)**	**Females (N=180)**	Whole Sample (Males + Females) (N=360)
1	25.51	25.04	25.27
2	25.93	25.19	25.56
3	25.36	24.53	24.94
4	25.36	24.54	24.95
5	25.97	25.46	25.72
6	25.53	25.03	25.28
7	25.20	24.66	24.93
8	25.17	24.82	24.99
9	25.58	25.16	25.37
10	25.80	25.51	25.65
11	25.60	25.36	25.48
12	25.91	25.38	25.64
13	25.99	25.31	25.65
14	25.89	25.49	25.69
15	25.03	24.26	24.64
16	25.87	25.37	25.62
17	25.36	24.62	24.99
18	25.55	25.17	25.36
19	13.32	13.27	13.29
Reliability coefficient			
Alpha	.85	.79	.82
Split half	.86	.80	.84

Table – 16: Item-total coefficient of correlation, reliability coefficients and relationships between **Factor -C** of YPI sub-scale over the level of analysis for males, for females and for the whole sample (males + females).

Factor C items	**Males (N=180)**	**Females (N=180)**	**Whole Sample (Males + Females) (N=360)**
1	9.34	9.59	9.47
2	9.43	9.66	9.54
3	9.79	10.12	9.96
4	6.09	6.20	6.14
5	9.78	9.62	9.70
6	6.09	6.20	6.14
Reliability coefficient			
Alpha	.86	.85	.85
Split half	.76	.67	.84

Table – 17: Item-total coefficient of correlation, reliability coefficients and relationships between **Factor- D** of YPI sub-scale over the level of analysis for males, for females and for the whole sample (males + females).

Factor D items	**Males (N=180)**	**Females (N=180)**	**Whole Sample (Males + Females) (N=360)**
1	36.60	42.37	39.48
2	36.41	42.51	39.46
3	35.79	41.67	38.73
4	35.94	41.59	38.77
5	35.87	41.68	38.77
6	36.28	42.22	39.25
7	36.25	42.21	39.23
8	36.41	42.29	39.35
9	35.88	41.74	38.81
10	36.28	42.43	39.36
11	35.43	41.33	38.38
12	35.65	41.54	38.59
13	35.82	41.89	38.86
14	35.60	41.66	38.63
15	36.25	42.52	39.39
16	36.45	42.26	39.36
17	36.47	42.79	39.63
18	36.57	42.67	39.62
19	36.18	42.12	39.15
20	35.71	41.61	38.66
21	36.31	42.33	39.32
22	36.21	42.17	39.19
23	36.70	42.78	39.74
24	36.63	42.65	39.64
Reliability coefficient			
Alpha	.85	.83	.84
Split half	.85	.88	.87

The item-total coefficient of correlation of YPI sub-scales (Factor A, B, C, and D) were put together with the reliability indices (Cronbach-alpha and split-half reliability) of the sample (for males, for females, and for males and females) are put together in Table- 14 - 17) .

Item-total coefficient of correlation and reliability indices emerged to be robust at each level of analysis (for males, for females and for the whole sample). Cronbach's Alpha for the internal reliability of the YPI ranged from 0.79 to 0.86. The split-half reliability ranged from 0.67 and 0.93. Findings are higher than .60; this demonstrated the trustworthiness of the YPI sub-scales for measurement purposes in the project population. The outcomes of analysis suggest the trustworthiness of the YPI scales for measurement purposes in the project population- Mizo adolescents.

The item-total coefficient of correlation of YPI sub-scales (Factor A, B, C, and D) were together with the reliability indices (Cronbach-alpha and split-half reliability) of the sample (for males, for females, and for males and females) are put together in Table- 18.

Table - 18: Mean, Standard Deviation, Item-total coefficients of correlation, Cronbach alpha reliability, Spearman-Brown reliability, range of inter item total coefficient correlation of YPI for the male, female and for the whole samples (Male +Female).

Group	*Male (n = 180*					*Female (n = 180)*				*Male + Female (N=360*)		
Sub scale	A	B	C	D	A	B	C	D	A	B	C	D
Mean	19.13	13.32	6.06	18.46	18.28	13.20	4.08	21.5	18.70	13.23	4.05	19.99
SD	8.57	7.07	4.18	7.53	7.22	5.71	2.26	7.14	7.91	6.37	2.30	7.49
No of Items	30	20	5	24	30	20	5	24	30	20	5	24
Range	.10 - .54	0.29-0.49	0.29-0.85	0.15-0.54	0.11-0.46	0.11-0.37	0.29-0.64	0.15-0.53	0.10-0.49	0.26-0.46	0.29-0.59	0.22 - 0.54
Alpha	0.83	0.82	0.71	0.81	0.79	0.75	0.69	0.79	0.82	0.76	0.65	0.81
Split-half	0.82	0.79	0.93	0.73	0.67	0.69	0.73	0.73	0.76	0.75	0.69	0.73
Correlation Coefficient		.59**	.43**	57**		.47**	.27**	.40**		.54**	.35**	.47**
			.56**	.66**			.34**	.41**			.46**	.53**
				.64**				.59**				.61**

* * = Correlation coefficient is significant at .01

* = Correlation coefficient is significant at .05

Item-total coefficient of correlation and reliability indices emerged to be robust at each level of analysis (for males, for females and for the whole sample). Cronbach's Alpha for the internal reliability of the YPI ranged from 0.65 to 0.83. The split-half reliability ranged from 0.67 and 0.93. Findings are higher than .60; this demonstrated the dependability of the YPI's sub-scales for measurement purposes in the project population. All the coefficients were significantly positive correlated (.01 level) that showing the trustworthiness of the test scale for the measurement purposes among the target population of Mizo.

Relationships of the subscale of YPI:

After ascertaining that the data generally met the requirements of the Pearson's Product-Moment correlation, intercorrelations were worked out between all the subscales of YPI. The relationships between the scales/sub-scales of the behavioural measures for males, for females and for the whole sample (males and females) are presented in Tables – 19.

Table - 19: Item total Coefficient correlation (Pearson Correlation) over the level of analyses for the whole sample on the sub-scales of the Youth Problem Inventory.

Source of variation	Items	ATT	BTT	CTT	DTT
Pearson Correlation	A1	**0.32**	0.20	0.07	0.13
	A2	**0.35**	0.28	0.15	0.15
	A3	**0.28**	-0.02	0.07	0.18
	A4	**0.39**	0.04	0.04	0.15
	A5	**0.44**	0.20	0.15	0.11
	A6	**0.43**	0.18	0.16	0.16
	A7	**0.37**	0.27	0.14	0.14
	A8	**0.49**	0.31	0.14	0.18
	A9	**0.40**	0.10	0.10	0.19
	A10	**0.42**	0.31	0.21	0.25
	A11	**0.46**	0.38	0.34	0.38
	A12	**0.36**	0.10	0.09	0.07
	A13	**0.44**	0.17	0.07	0.16
	A14	**0.35**	0.07	0.06	0.13
	A15	**0.47**	0.37	0.18	0.24
	A16	**0.34**	0.10	0.07	0.20
	A17	**0.45**	0.23	0.16	0.17
	A18	**0.46**	0.35	0.22	0.20
	A19	**0.48**	0.40	0.20	0.24
	A20	**0.46**	0.25	0.16	0.17
	A21	**0.54**	0.35	0.21	0.35
	A22	**0.55**	0.38	0.20	0.30
	A23	**0.34**	0.15	0.07	0.17
	A24	**0.32**	0.10	0.14	0.15
	A25	**0.29**	0.22	0.16	0.22
	A26	**0.43**	0.33	0.16	0.17
	A28	**0.23**	0.01	0.02	0.15
	A29	**0.38**	0.30	0.15	0.20
	A30	**0.38**	0.29	0.25	0.21
	A31	**0.44**	0.40	0.17	0.23
	B1	0.33	**0.42**	0.24	0.29
	B2	0.17	**0.35**	0.20	0.28
	B3	0.18	**0.39**	0.19	0.32
	B4	0.29	**0.51**	0.20	0.32
	B5	0.37	**0.51**	0.22	0.25

B6	0.25	**0.55**	0.25	0.26
B7	0.07	**0.38**	0.07	0.09
B8	0.09	**0.49**	0.17	0.13
B9	0.21	**0.52**	0.16	0.21
B10	0.25	**0.40**	0.17	0.12
B11	0.32	**0.53**	0.24	0.19
B12	0.25	**0.39**	0.24	0.23
B13	0.39	**0.48**	0.23	0.25
B14	0.26	**0.48**	0.35	0.24
B15	0.25	**0.37**	0.23	0.35
B16	0.22	**0.41**	0.19	0.22
B17	0.20	**0.42**	0.24	0.27
B18	0.22	**0.48**	0.16	0.23
B19	0.31	**0.37**	0.11	0.21
B20	0.26	**0.35**	0.58	0.45
C1	0.24	0.29	**0.77**	0.40
C2	0.25	0.34	**0.78**	0.43
C3	0.23	0.35	**0.50**	0.36
C4	0.35	0.46	**1.00**	0.61
C5	0.19	0.16	**0.22**	0.33
D1	0.19	0.16	0.22	**0.33**
D2	0.27	0.27	0.26	**0.40**
D3	0.19	0.21	0.24	**0.46**
D4	0.14	0.26	0.37	**0.49**
D5	0.21	0.25	0.39	**0.48**
D6	0.11	0.19	0.16	**0.34**
D7	0.15	0.27	0.38	**0.55**
D8	0.19	0.17	0.27	**0.47**
D9	0.19	0.15	0.25	**0.33**
D10	0.27	0.35	0.36	**0.50**
D11	0.11	0.05	0.27	**0.36**
D12	0.13	0.10	0.21	**0.42**
D13	0.26	0.34	0.38	**0.59**
D14	-0.02	0.08	0.21	**0.32**
D15	0.20	0.25	0.21	**0.38**
D16	0.18	0.18	0.16	**0.37**
D17	0.34	0.36	0.24	**0.35**
D18	0.33	0.37	0.28	**0.39**
D19	0.22	0.29	0.30	**0.45**
D20	0.16	0.13	0.11	**0.38**
D21	0.32	0.26	0.18	**0.49**
D22	0.28	0.32	0.40	**0.61**
D23	0.32	0.26	0.17	**0.40**
D24	0.31	0.29	0.25	**0.46**
ATT	1.00	***0.53***	0.35	0.48
BTT	0.53	1.00	***0.46***	0.53
CTT	0.35	0.46	1.00	***0.61***
DTT	0.48	0.53	0.61	1.00

The correlation between the inter-subscale of Youth Problem Inventory Test also indicates that there was correlation between the sub-scales as shown in the

Table - 19, every item in the sub scale Factor –A: *Family Problem* correlated each other and with the total scores; the scores in this sub scale lying between 0.23 and 0.55, every items in the sub scale Factor-B: *School/College Problems* are also correlated each other showing the scores in between 0.35 and 0.55. Every items in the sub scale Factor-C: *Social Problems* are also correlated each other recording the scores between 0.11 and 1.00, items in sub-scale Factor-D: *Problem regarding Personality and over Sensitivity* are also correlated each other by scoring the range between 0.32 and 0.61.The results revealed that the significant positive item total coefficient correlation among the sub-scales of the YPI and highlighted their contribution to the scale for measurement purposes.

The overall psychometric analysis confirmed the adequacy of the scale for measurement purpose for the target population under study, and supporting the finding of Verma (1971) on the trustworthiness of YPI for measurement purposes, and also suggested replicability among the Mizo adolescent.

(3) Standard Progressive Matrices (Raven et.al.1992):

The Mean, SD, item-total coefficient of correlation on the sub-scales of the RSPM (factors-: A, B, C and D) were put together with the reliability indices (split-half reliability) for male, female and for the whole samples in Table -20.

Table – 20: Mean, Standard Deviation, Item-total coefficients of correlation and reliability coefficient of RSPM for the male, female and whole (male + female) samples.

	Male (n = 180)					*Female (n = 180)*					*Male + Female (N=360)*					
	FA	FB	FC	FD	FE	FA	FB	FC	FD	FE	FA	FB	FC	FD	FE	FTTRSPM
Mean	10.56	8.96	7.51	7.34	4.72	10.09	8.77	7.43	7.63	4.56	10.32	8.86	7.47	7.49	4.64	38.48
SD	2.13	2.82	3.16	2.78	2.77	1.92	2.77	2.89	2.82	2.70	2.04	2.79	3.02	2.80	2.73	10.62
No of Items	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	.60
Split-half	.0.65	0.75	0.80	0.66	0.65	0.41	0.70	0.77	0.66	0.69	0.54	0.73	0.78	0.66	0.66	0.86
Inter-Sub-scale Correlation Coefficient	FB	0.61**	0.53**	0.45*	0.33*		0.56**	0.57**	0.47**	0.39**		0.59**	0.54**	0.45**	0.36**	0.69**
	FC		0.77**	0.71**	0.50**			0.77**	0.64**	0.43**			0.77**	0.67**	0.47**	0.87**
	FD			0.74**	0.54**				0.74**	0.49**				0.74**	0.56**	0.89**
	FE				0.62**					0.51**					0.72**	0.85**

** =Correlation coefficient is significant at .01
* = Correlation coefficient is significant at .05

The split-half reliability ranged from 0.41 and 0.86. Findings are higher than .50. Item-total coefficient of correlation and reliability indices almost emerged to be robust at each level of analysis except on factor- A for female samples was a bit low (than 0.50), but acceptable level for measurement purposes in the project population under study.

Relationships of the sub-scales of RSPM Behavioural Measures

After ascertaining that the data generally met the requirements of the Pearson's Product-Moment correlation, intercorrelation were worked out between all the subscales of RSPM. The relationships between the scales/sub-scales of the behavioural measures for males, females and for the whole sample (males + females) are presented in Tables- 21.

Table - 21: Item total Coefficient correlation (Pearson Correlation) over the level of analyses for the whole sample on the sub-scales of the RSPM.

	No items	ATT	FBTT	FCTT	FDTT	FETT	RSPM TT
Pearson Correlation	FA1	**0.42**	0.23	0.34	0.15	0.09	0.22
	FA2	**0.37**	0.20	0.21	0.16	0.10	0.25
	FA3	**0.43**	0.15	0.12	0.12	0.06	0.20
	FA4	**0.50**	0.29	0.23	0.19	0.15	0.32
	FA5	**0.42**	0.23	0.22	0.19	0.08	0.27
	FA6	**0.59**	0.36	0.35	0.28	0.15	0.41
	FA7	**0.67**	0.50	0.45	0.39	0.28	0.55
	FA8	**0.60**	0.27	0.26	0.22	0.26	0.38
	FA9	**0.69**	0.39	0.36	0.29	0.20	0.45
	FA10	**0.64**	0.36	0.34	0.26	0.19	0.42
	FA11	**0.62**	0.36	0.31	0.25	0.28	0.43
	FA12	**0.63**	0.42	0.42	0.35	0.29	0.51
	FB1	0.23	**0.33**	0.22	0.12	0.05	0.23
	FB2	0.35	**0.33**	0.29	0.21	0.19	0.33
	FB3	0.55	**0.68**	0.63	0.58	0.37	0.70
	FB4	0.26	**0.46**	0.23	0.17	0.09	0.30
	FB5	0.42	**0.69**	0.60	0.45	0.31	0.62
	FB6	0.31	**0.52**	0.35	0.34	0.27	0.44
	FB7	0.30	**0.49**	0.38	0.29	0.19	0.41
	FB8	0.28	**0.62**	0.46	0.46	0.37	0.55
	FB9	0.23	**0.45**	0.40	0.33	0.18	0.40
	FB10	0.33	**0.55**	0.47	0.46	0.22	0.51
	FB11	0.37	**0.70**	0.53	0.44	0.34	0.59
	FB12	0.23	**0.53**	0.33	0.29	0.30	0.42
	FC1	0.43	0.48	**0.64**	0.45	0.24	0.56
	FC2	0.42	0.49	**0.64**	0.51	0.34	0.60
	FC3	0.40	0.61	**0.74**	0.56	0.35	0.67
	FC4	0.37	0.49	**0.70**	0.48	0.30	0.59
	FC5	0.44	0.59	**0.74**	0.52	0.33	0.66
	FC6	0.25	0.42	**0.62**	0.54	0.33	0.55
	FC7	0.37	0.50	**0.66**	0.53	0.39	0.61
	FC8	0.38	0.51	**0.61**	0.47	0.34	0.58

FC9	0.48	0.60	**0.74**	0.60	0.44	0.71
FC10	0.14	0.30	**0.42**	0.22	0.22	0.33
FC11	0.20	0.32	**0.50**	0.37	0.31	0.43
FD1	0.41	0.41	0.51	**0.62**	0.30	0.56
FD2	0.34	0.48	0.64	**0.72**	0.35	0.64
FD3	0.38	0.45	0.55	**0.70**	0.34	0.61
FD4	0.39	0.52	0.53	**0.69**	0.38	0.63
FD5	0.34	0.45	0.51	**0.62**	0.33	0.56
FD6	0.26	0.43	0.47	**0.60**	0.35	0.53
FD7	0.20	0.32	0.35	**0.55**	0.30	0.43
FD8	0.21	0.34	0.35	**0.49**	0.27	0.42
FD9	0.23	0.39	0.42	**0.57**	0.44	0.52
FD10	0.20	0.32	0.39	**0.57**	0.36	0.47
FD11	0.00	0.07	0.11	**0.22**	0.12	0.13
FD12	0.06	0.04	0.02	**0.17**	0.08	0.09
FE1	0.33	0.38	0.44	0.47	**0.54**	0.54
FE2	0.21	0.31	0.37	0.36	**0.45**	0.42
FE3	0.19	0.22	0.28	0.31	**0.46**	0.37
FE4	0.14	0.19	0.22	0.29	**0.62**	0.37
FE5	0.23	0.33	0.37	0.39	**0.70**	0.51
FE6	0.09	0.12	0.11	0.16	**0.54**	0.26
FE7	0.17	0.26	0.28	0.27	**0.48**	0.37
FE8	0.23	0.26	0.30	0.30	**0.54**	0.40
FE9	0.21	0.30	0.37	0.36	**0.62**	0.46
FE10	0.03	0.02	0.03	0.03	**0.27**	0.09
FE11	0.09	0.09	0.06	0.09	**0.24**	0.14
FE12	0.13	0.10	0.14	0.18	**0.35**	0.23
FATT	1.00	**0.59****	**0.54****	**0.45****	**0.36****	**0.69****
FBTT		1.00	**0.75****	**0.64****	**0.45****	**0.86****
FCTT			1.00	**074****	**0.5**1**	**0.89****
FDTT				1.00	**0.56****	**0.85****
FETT					1.00	**0.72****
RSPMT T						1.00

The correlation between the inter-subscale of RSPM also indicates that there is positive significant correlation between the sub-scales that confirm the test scale acceptability for the measurement purpose for the present study.

In the Table – 21, shows that all the sub scale/factors in RSPM are correlated each other. Scores at factor - A shows that the scores were lying in between 0.37 and 0.69; also 0.33 and 0.70 in factor- B; 0.42 and 0.74 in factor -C; 0, 17 and 0.72 in factor -D and lying between 0.24 and 0.70 in factor- E. The total score in factor A, B, C, D and E are also correlated each other showing the score

ranging between 0.56 and 0.75 highlighting the validity of each factors of YPI for it purport to measure.

The overall investigation relating to the confirmation of the adequacy of the RSPM revealed that the scale was trustworthy for the measurement purpose of the behavioural variables in the projected population under study as the Item total Coefficients correlation for male, female and whole samples were more or less same with the finding of Ravens (Raven et.al.1992).

Predictability of Age, Gender, and Ecology on the sub-scale of the PI among Mizo Adolescents.

The ANOVA was computed to highlight the predictions of independent variables of their independent and interaction effect on the Parental Involvement, Psychological Autonomy Granting and Behavioural Control of the subscale of Parenting Inventory(PI).

Table -22: Results of ANOVA for independent and interaction effect of independent variables on the behavioural measures of PI..

Sources of variation		*Parental involvement*		*Psychological Autonomy Granting*		*Behavioural Control*	
	Df	Sum of Mean Sq	F-Ratio	Sum of Mean Sq	F-Ratio	Sum of Mean Sq	F-Ratio
Gender	1	84.30	5.35 *	1.30	0.08	211.24	51.57 **
Ecology	1	214.90	13.63 **	0.60	0.04	2.50	0.61
Age Group	1	107.90	6.84 **	232.00	15.04 **	16.62	4.06 *
Gender X Ecology	1	6.50	0.41	10.50	0.68	3.60	0.88
Gender X Age Group	1	1.00	0.07	6.70	0.44	1.52	0.37
Ecology X Age Group	1	2.30	0.14	88.50	5.74 *	1.41	0.34
Gender X Ecology X Age Group	1	17.20	1.09	0.00	0.00	16.26	3.97 *
Error	352	5551.20		5428.50		1441.74	

** = *significant at .01 level.* * = *significant at .05 level.*

(1) Prediction of 'Gender' on sub scale of PI:

(a) Prediction of 'Gender' on parental involvement (Pi): The Fisher's LSD shows the significant independent effect of 'gender' was found on (Pi), (M= 84.30 and F. ratio= 5.35; $p < .05$). Differences between mothers' and fathers' parenting were reported in adolescents' perceptions of their mothers and fathers and in the influences of mothers' and fathers' parenting practices on adolescent outcomes that adolescents tend to link more emotional attributes to mothers and more rigid and formal attributes to fathers; (Pipp, Shaver, Jennings, Lamborn, and Fischer, 1985). The present study was in agreement with the earlier studies showing the gender difference on parental involvement.

(b) Prediction of 'Gender' on Behavioural Control: The independent significant gender effect was found on Behavioural Control (BC), (M= 211.24, F. Ratio = 51.57; $p < .01$), and the finding got supporting evidence that mothers reported themselves to be higher on firm control, acceptance, and closeness than fathers (Forehand & Nousiainen, 1993) and mothers rated fathers as less accepting of their children than they rated themselves (Schwarz, Barton-Henry, & Pruzinsky, 1985).

(2) Prediction of 'Ecology' on subscale of Pi of the subscale of PI: The significant independent effect of 'ecology' was found on Pi (M= 214.90, F-ratio= 13.6; $p < .01$), conforming to the available literature that lower socioeconomic status and single parenthood have been linked to higher levels of behavioural problems in children (Hetherington & Clingempeel, 1992; Huston, McLoyd, & Garía Coll, 1994) and more negative parenting (Conger et al., 1992; Hoff-Ginsberg & Tardif, 1995; Jenkins, Rasbash, & O'Connor, 2003) and other study also revealed that socioeconomic status can either directly or indirectly affect the quality of family relationships and, more specifically, parent–child relationships (e.g., Conger et al., 1994; McLoyd, Jayaratne, Ceballo, & Borquez, 1994) as the same case happened in Mizoram rural and urban areas.

(3) Prediction of 'age group' on subscale of the Pi of the subscale of PI:

(a) The significant independent effect of 'Age' group was found in (Pi), (M= 107.90, F-Ratio= 6.84; $p < .01$) of the sub-scale of PI. Considering the major transformations in parent-child relationships during adolescence (Hill, 1980, 1983; and Collins, 1990) consequently parenting styles and their influences on adolescent outcomes change from early to late adolescence. Several studies also have shown that parenting differs by the age of the adolescent (Dix, Ruble, Grusec, & Nixon, 1986; Epstein, 1987; Feldman & Gehring, 1988; Johnson et al., 1991; Lucas & Lusthaus, 1978; Pipp et al., 1985; Paikoff & Brooks-Gunn, 1991; Smollar & Youniss, 1989)., the same trend was found in the present study.

(b) The significant independent effect of 'Age' group on Psychological Autonomy Granting (PAG), (M= 232.00, F-ratio=232.00; $p < .01$) in confirmation to the finding of Barber (2002) that higher levels of psychological control reported by males than females, by younger than older children, among lower than upper socioeconomic status families, and by ethnic minority than European American families. In other study it was reported that early adolescence is often a time of increased emotional and physical distancing from parents (Paikoff & Brooks-Gunn, 1991; Steinberg, 2001), as well as a time during which the frequency and affective intensity of parent–child conflicts may be higher than at other ages (Laursen, Coy, & Collins, 1998).

(c) The significant independent effect of 'Age' group on Behavioural Control (BC) was demonstrated (M=16.62, F-ratio= 4.06; $p < .05$) that have same inclination with the finding of Collins (1990) that parenting styles and their influences on adolescent outcomes may change from early to late adolescence.

(4) Prediction of 'ecology x age group' on Pag of the subscale of PI:

The 'ecology x age group' interaction effect was found on Psychological Autonomy Granting (PAG), (M= 88.50, F-ratio=5.74; $p < .05$) subscale of PI. The finding had receives supporting evidence that cultures vary in degree of industrialization, extent of individualism versus collectivism, religion, and exposure

to political violence; consequently the psychological control relating to internalizing and externalizing problems variation in a variety of cultures, much as has been found in the United States that leads to higher levels of psychological control reported by males than females, by younger than older children, among lower than upper socioeconomic status families, and by ethnic minority than European American families(Barber, 2002).

(5) Prediction of* 'gender x ecology x age group' *on Behavioural Control of the subscale of PI:

The three interaction effect of 'Gender x Ecology x Age group' effect was depicted on Behavioural Control (M=16.26, F-ratio= 3.97; $p < .05$) subscale of PI. Researches demonstrated that different cultural groups vary on family demography (e.g., mother-led families are more common in African American and Native American cultures; McCreary & Dancy, 2004), lower socioeconomic status have been linked to higher levels of behavioural problems in children (Hetherington & Clingempeel, 1992; Huston, McLoyd, & Garía Coll, 1994) and more negative parenting (Conger et al., 1992; Hoff-Ginsberg & Tardif, 1995; Jenkins, Rasbash, & O'Connor, 2003) and higher levels of psychological control reported by males than females, by younger than older children, among lower than upper socioeconomic status families, and by ethnic minority than European American families(Barber, 2002), and also demandingness appears to be less critical to girls' than to boys' well-being (Weiss & Schwarz, 1996)

The Fisher's LSD results for the subscale of PI:

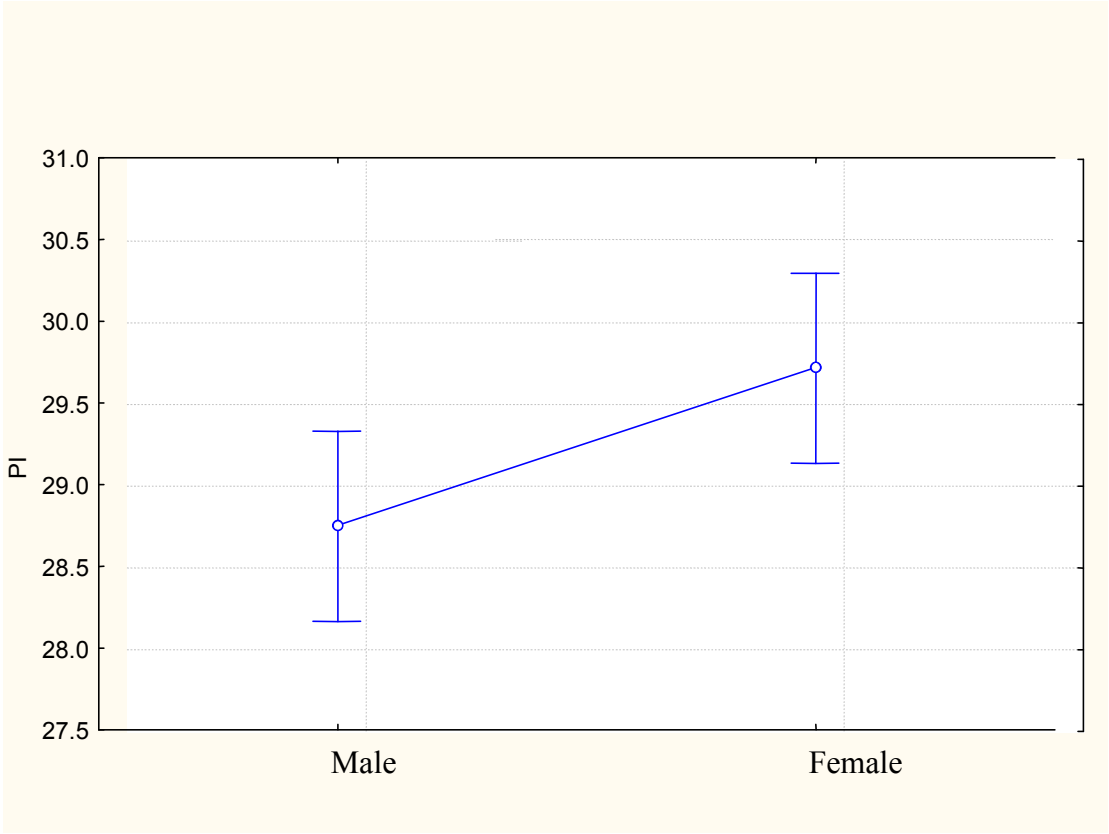
The ANOVA (Table - 22) has shown the significant independent effect of 'Gender', ' Ecology' and 'Age group'; and significant interaction effect of 'Ecology X Age Group' and three interaction effect of 'Gender X Ecology X Age Group', that were analyzed with Fisher's LSD means comparison and presented in the preceding.

(i) The Fisher's LSD for significant independent effect of 'Gender' on PI:

(a). The Fisher's LSD for significant independent effect of 'Gender' on Pi of the subscale of PI: The significant independent effect of 'Gender' for the 2x2x2 (2

Gender x 2 Ecology x 2 Age Group) Factorial design on Parenting Involvement (Pi) as provided by The Fisher's LSD manifested greater mean score for Female (M = 29.72) as compared to Male (M = 28.76).The significant mean differences (M1-M2 = 0.956; p <.05) is depicted in Figure – 7.

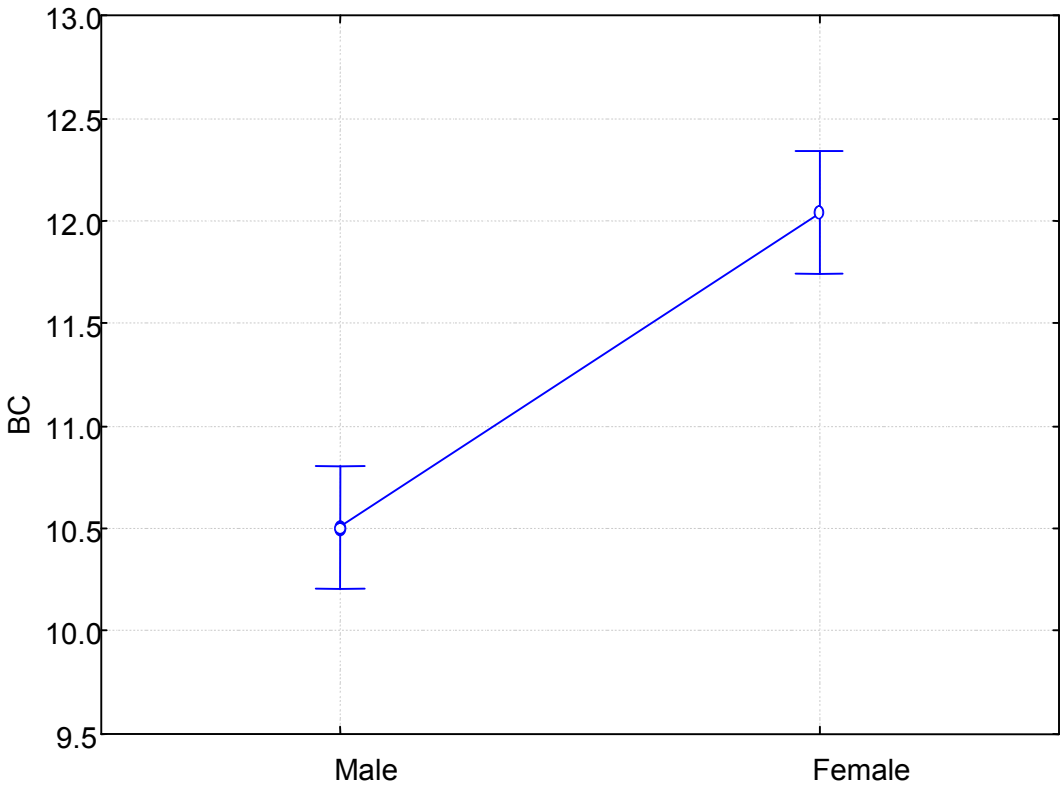
Figure -7: Mean plots for the significant of interaction effect of Gender on Parental involvement (Pi) of the sub-scale of PI scale.



(b) The Fisher's LSD for significant independent effect of ''Gender' on Behavioural Control of the subscale of PI: The independent effect of 'Gender' for the 2 X 2 x 2 (2 Gender x 2 Ecology x 2 Age Group) Factorial design on Behavioural Control (BC) is also subjected to Fisher's LSD.

The Fisher's LSD show that greater mean score for Female (M = 12.04) as compared to Male (M = 10.51). The significant mean differences (M1-M2 = 1.533; p < .01) is depicted in Figure – 8.

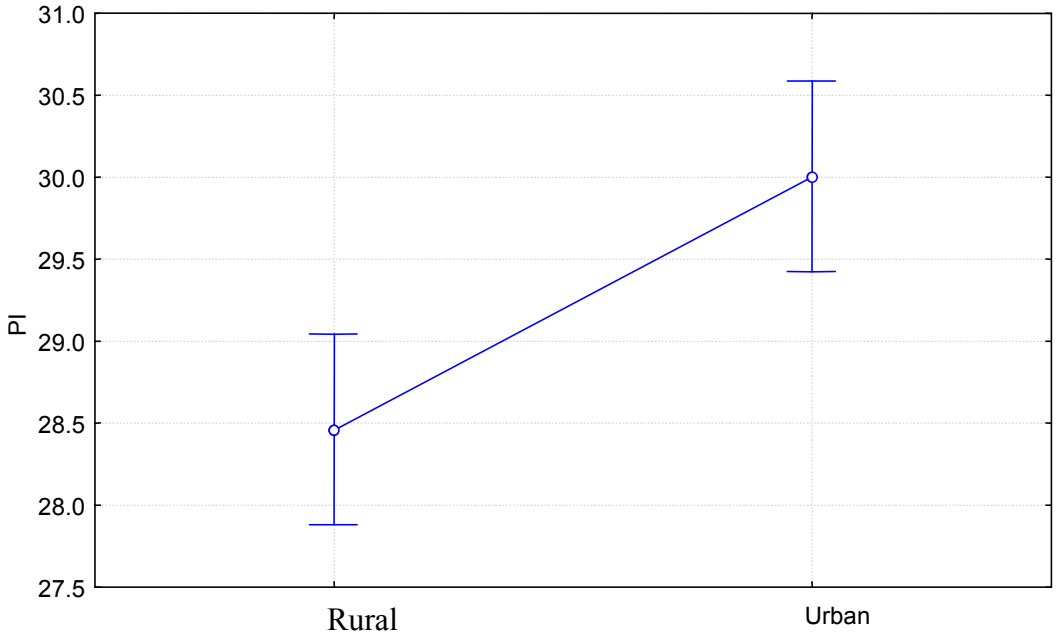
Figure- 8: Mean plots for the significant of interaction effect of 'Gender' on Behavioural Control of the sub-scale of the PI.



(ii) The Fisher's LSD for significant independent effect of ''Ecology' on Pi of the subscale of PI:

The Fisher's LSD for Ecology in PI manifested greater mean score for Urban (M= 30.01) as compared to Rural (M= 28.47).The significant mean differences (M1-M2 = 1.534,P < .01) is depicted in Figure - 9.

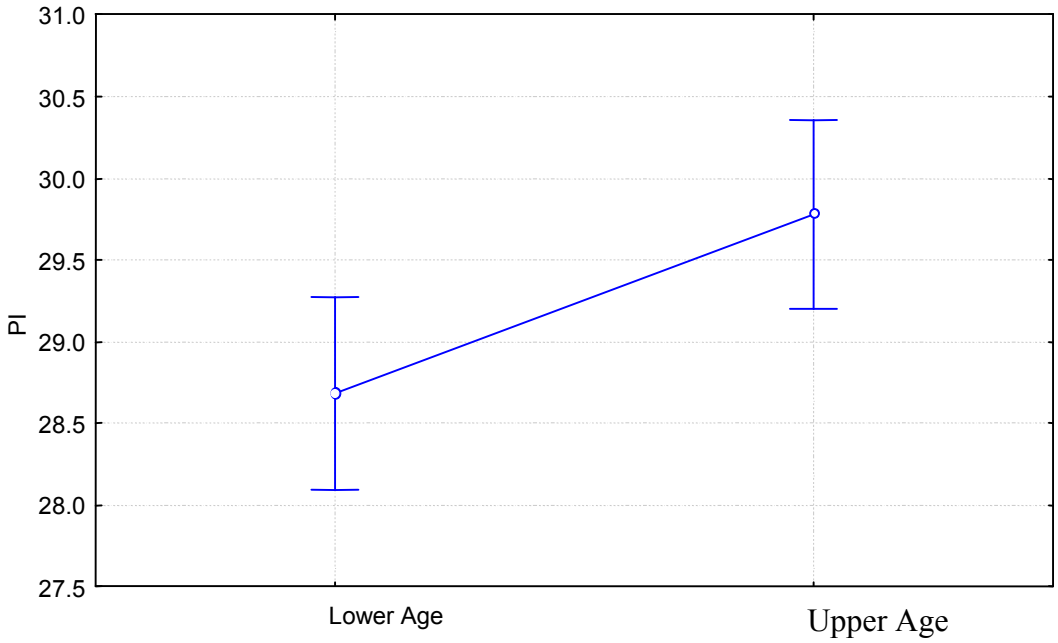
Figure -9: Mean plots for the significant of interaction effect of Ecology on Parental involvement (Pi) of the sub-scale of PI,



***(iii) The Fisher's LSD for significant independent effect of ''Age group' on PI**:*

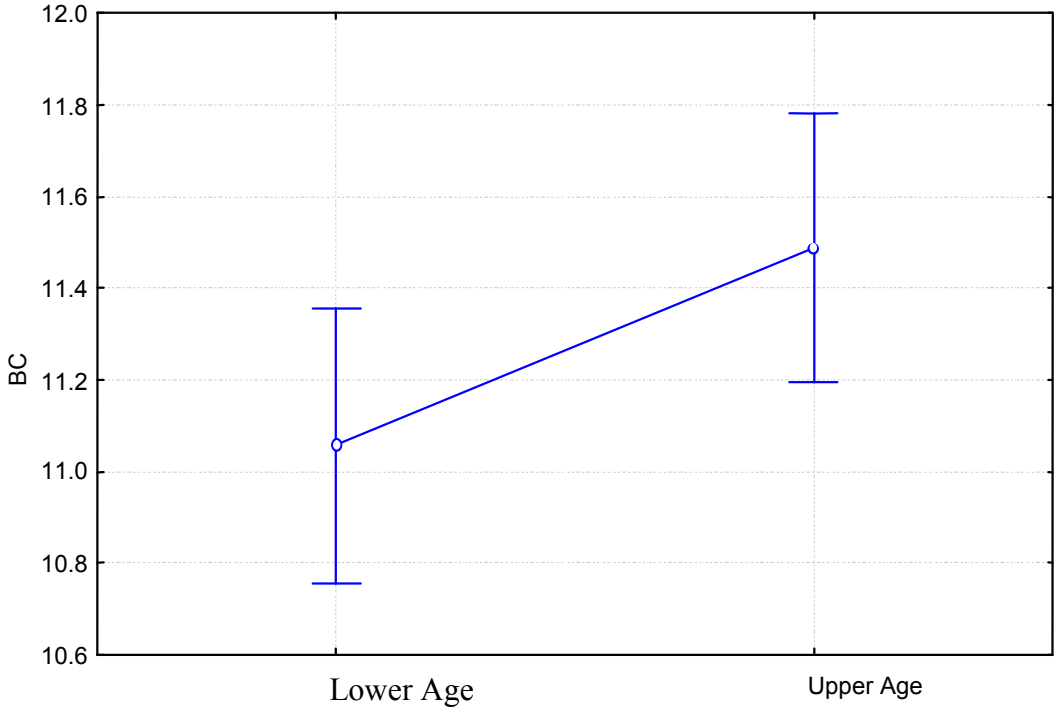
(a) The Fisher's LSD for significant independent effect of ''Age group' on Pi of the subscale of PI of the subscale of PI: The Fisher's LSD for 'Age Group on PI' manifested greater mean score for Upper Age Group (M =29.25) as compared to Lower Age Group (M=28.71).The significant mean diff (M1-M2 = 1.035; $p < .05$) is depicted in Figure – 10.

Figure – 10: Mean plots for the significant of interaction effect of 'Age' on Parental involvement (Pi) of the sub-scale of PI.



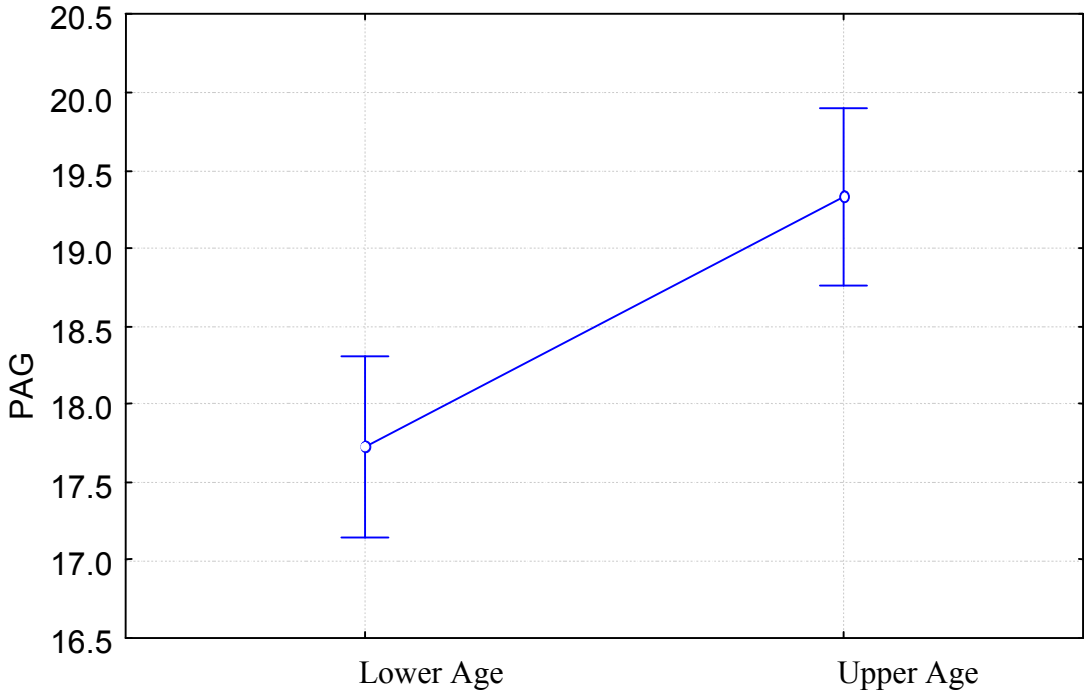
(b) The Fisher's LSD for significant independent effect of 'Age' Group on Behavioural Control of the subscale of the PI: Result revealed that shows that greater mean score for Upper Age Group (M = 11.46) than Lower Age Group (M = 11.07).The significant mean diff (M1-M2 = 0.388; p > .05) is depicted in Figure -11.

Figure -11: Mean plots for the significant of interaction effect of 'Age' on Behavioural Control of the subscale of the PI.



(c) The Fisher's LSD for significant independent effect of 'Age' on Pag of the subscale of PI: The Fisher's LSD was employed to portrait the significant independent effect of the three independent variables on Psychological Autonomy Granting' of the subscale of PI. The significant independent effect of 'Age Group' for the 2 x 2 x 2 (2 Gender x 2 Ecology x 2 Age Group) Factorial design on Psychological Autonomy Granting' by the Fisher's LSD shows greater mean score for Upper Age (M = 19.32) as compared to Lower Age Group (M = 17.72). The significant mean difference (M1-M2 = 0.1599; $p < .01$) is depicted in Figure.- 12.

Figure -12: Mean plots for the significant of interaction effect of 'Age' on Psychological Autonomy Granting of the sub-scale of PI.



(4) The Fisher's LSD for significant interaction effect of 'Ecology x Age group' on Pag of the subscale of PI: as shown in Table- 23.

Table -23: The Fisher's LSD for significant independent effect of Ecology-Age Group for the 2 x 2 x 2 (2 Gender x2 Ecology x 2 Age Group) Factorial design on PAG subscale of PI.

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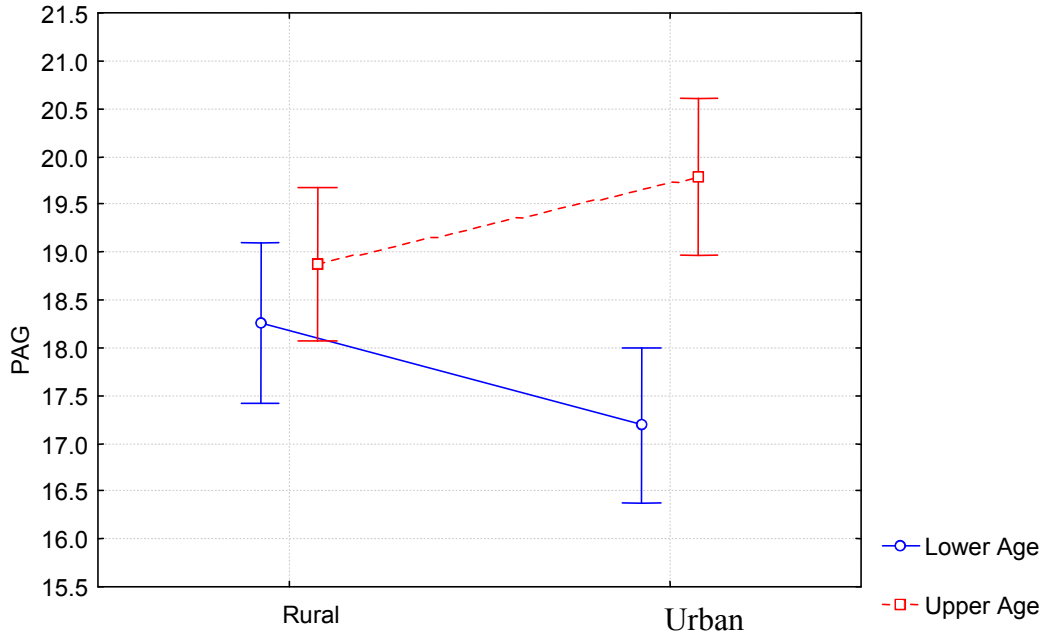
Ecology X Age Group	Urban L-Age (M1=17.19)	Rural L-Age (M2=18.27)	Rural U-Age (M3=18.82)	Urban U-Age (M4=19.79)
Urban L-Age		1.090	1.683 **	2.600 **
Rural L-Age			0.593	1.510 *
Rural U-Age				0.917

** = *Significant at .01 level, * = Significant at .05 level*

The Fisher's LSD for significant independent effect of Ecology-Age Group for the 2 x 2 x 2 (2 Gender x2 Ecology x 2 Age Group) Factorial design on PAG manifested greater mean score for Rural Upper Age (M = 18.82) as compared to Urban-Lower Age Group(M = 17.19) . The significant mean diff. (M1-M2 = 1.683; $p < .01$).is depicted in Figure -13.

The mean score by Urban-Upper Age Group (M4 = 19.89) is also higher than the mean score by Urban-Lower Age Group (M1 = 17.19). The significant mean diff. is (M1-M2) = 2.600; $p < .01$).The mean score by Urban Upper Age Group (M4=19.79) is also higher than the mean score of Rural Lower Age (M2=18.27).The significant Mean diff.(M1-M2 = 1.510; $p < .05$) which are depicted in Figure -13.

Figure - 13: Mean plots for the significant of interaction effect of 'Ecology and Age' on Psychological Autonomy Granting of the Sub-scale of PI.



(5) The Fisher's LSD for significant independent effect of ''Ecology x Gender x Age' significant interaction effect on Behavioural Control of the subscale of PI.

As shown in the Table -23, The significant independent effect of 'Gender, Ecology and Age Group' for the 2 x 2 x 2 (2 Gender x 2 Ecology x Age Group) Factorial design on Behavioral Control was calculated by using Means comparision and presented in ascending order in Table – 23, and the manifested results as follows:

(1) Male urban lower age group (M1= 10.13) was lower than Male Urban upper age (M4= 11,24) at significant level (M1-M4 = 1.111;p <.01.), female Rural lower age (M5=11.76) at significant level (M1-M5 = 1.623;p < .01), Female Urban Lower age (M6= 12.02) at significant level (M1-M6 = 1.889;p < .01), Female urban upper age (M7=12.02) at significant level (M1-M7 =1.899; p < .01)

and Female rural upper age (M8= 12 .36) at significant level (M1-M8 = 2.223: p < .01).

(2) Male Rural lower age group (M2= 10.32) was lower than Male Urban upper age (M4= 11,24) at significant level (M2-M4 = 0.927;p <.01.), female Rural lower age (M5=11.76) at significant level (M2 -M5 = 1.439;p < .01), Female Urban Lower age (M6= 12.02) at significant level (M2-M6 = 1.705;p < .01), Female urban upper age (M7=12.02) at significant level (M2-M7 =1.705; p < .01) and Female rural upper age (M8= 12 .36) at significant level (M2-M8 = 2.039: p < .01).

(3) Male Rural Upper age group (M3= 10.33) was lower than Male Urban upper age (M4= 11,24) at significant level (M3-M4 = 0.917;p <.05.), female Rural lower age (M5=11.76) at significant level (M3 -M5 = 1.429;p < .01), Female Urban Lower age (M6= 12.02) at significant level (M3-M6 = 1.695;p < .01), Female urban upper age (M7=12.02) at significant level (M3-M7 =1.695; p < .01) and Female rural upper age (M8= 12 .36) at significant level (M3-M8 = 2.029: p < .01).

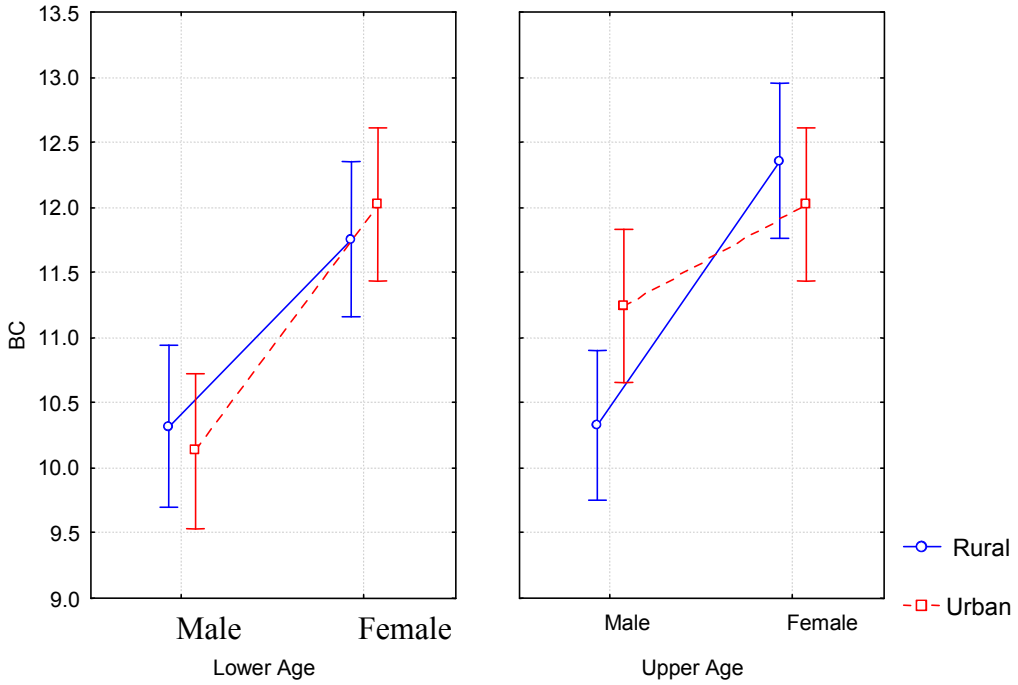
(4) Male urban Upper age (M4= 11.24) was lower than Female rural upper age (M8= 12 .36) at significant level (M4-M8 = 1.112: p < .01).

The results of the Fisher's LSD confirmed the outcomes of the ANOVA by displaying the significant independent effects of the independent variables of "Ecology', 'Gender' and 'Age' in every comparision on the behavioural control of the sub scale of Parenting. The above results were displayed in Figure -14 in the preceding.

Table – 24: The significant Idependent effect of 'Gender x Ecology x Age Group' for the 2 x 2 x 2 (2 Gender x 2 Ecology x Age Group) Factorial design on Behavioral Control

Gender X Ecology y X Age	Male-Urban L-Age (M1=10.13)	Male-Rural L-Age (M2=10.32)	Male-Rural U-ge (M3=10.33)	Male-Urban U-ge (M4=11.24)	Female-Rural L-Age (M5=11.76)	Female-Urban L-Age (M6=12.02)	Female-Urban U-Age (M7=12.02)	Female-Rural U-Age (M8=12.36)
Male-Urban L-Age		0.184	0.189	1.111 **	1.623 **	1.889 **	1.889 **	2.223 **
Male-Rural L-Age			0.010	0.927 **	1.439 **	1.705 **	1.705 **	2.039 **
Male-Rural U-Age				0.917 *	1.429 **	1.695 **	1.695 **	2.029 **
Male-Urban U-Age					0.512	0.778	0.778	1.112 **
Female-Rural L-Age						0.266	0.266	0.600
Female-Urban L-Age							0.000	0.334
Female-Urban U-Age								0.334

Figure - 14: Mean plots for the significant of interaction effect of 'Gender, Ecology and Age Group' on Behavioural Control of the sub-scale of the PI.



2. Youth Problem Inventory

The mean and SD values of the subscale of the YPI for the three independent variables "Ecology', 'Gender' and 'Age' for the whole samples were presented in Table – 25.

Table – 25: Showing the Mean and SD values of the subscale of YPI for .Ecology', 'Gender' and 'Age' group of the whole samples.

Ecology	Gender	Age	Source of Variation	Youth Problems			
				Family	School/ College	Soci al	Personal/ over sensitivity
RURAL	Male	Lower	Mean	9.41	7.27	5.76	5.56
			SD	2.26	2.70	3.35	2.73
		Upper	Mean	10.59	9.35	6.87	7.73
			SD	2.30	2.78	2.98	2.68
	Female	Lower	Mean	11.36	8.80	9.02	6.71
			SD	1.05	2.69	2.46	2.46
		Upper	Mean	10.76	8.07	6.34	9.16
			SD	2.23	2.79	3.19	1.98
URBAN	Male	Lower	Mean	9.96	9.79	8.57	6.64
			SD	1.40	2.59	2.75	2.25
		Upper	Mean	9.67	7.44	6.47	7.51
			SD	2.27	2.75	2.98	3.43
	Female	Lower	Mean	10.20	8.51	7.67	7.47
			SD	2.23	2.78	2.83	2.59
		Upper	Mean	10.60	9.13	7.04	8.91
			SD	1.74	2.51	2.74	2.46

To highlight the prediction of independent and interaction effect of the "Ecology', 'Gender', and 'Age' group on the scale and subscales of the YPI, the ANOVA was computed, and the outcomes were discussed sequentially in preceding:

Table - 26: Results of ANOVA for prediction of independent and interaction effect of the independent variables on subscale of YPI.

Sources of variation		*Problem-A*		*Problem-B*		*Problem-C*		*Problem-D*	
	Df	Sum of Mean Sq	F-Ratio	Sum of Mean sq	F-Ratio	Sum of Mean Sq	F-Ratio	Sum of Mean Sq	F-Ratio
Gender	1	65.50	1.21	25.07	0.61	0.27	0.05	835.20	15.71**
Ecology	1	77.90	1.44	116.61	2.84	4.46	0.85	1.20	0.02
Age Group	1	1683.60	31.09**	160.11	3.90 *	19.85	3.77	73.20	1.38
Gender X Ecology	1	403.80	7.46 **	203.74	4.97 *	1.61	0.31	101.30	1.91
Gender X Age Group	1	3.10	0.06	8.18	0.20	1.18	0.22	0.90	0.02
Ecology X Age Group	1	1195.50	22.07**	29.80	0.73	16.60	3.15	315.80	5.94 *
Gender X Ecology X Age Group	1	0.20	0.00	4.07	0.10	1.42	0.27	73.20	1.38
Error		19065.40		14440.73		1853.06		18715.10	

** = *Significant at .01 level* * = *Significant at .05 level*

As shown in Table – 26, for the 2x2x2 (2 Gender x 2 Ecology x 2 Age Group) Factorial design, The Fisher's LSD for 'Gender' on Youth Problem Inventory (YPI) shows significant independent effect on Problem-D: *Personal Problem and Over sensitivity* (M=835.20, and F. ratio= 15.71; $p < .01$) whereas Gender has no significant independent effect on Problem-A: *Family Problem*; Problem-B: *School /Colleges Problem* and Problem-C: *Social Problem*.

(1) Prediction of 'Gender' on the Problem-D: *Personal Problem and Over sensitivity of the YPI:*

*The results revealed that t*he ANOVA shows that significant independent affect of 'Gender' on Problem-D: *Personal Problem and Over sensitivity* (M=835.20, and F. ratio= 15.71; $p < .01$), that find relevant evidence that parental

aggression is associated with elevations in interpersonal problems for male and female adults (Blumenthal, Neemann, & Murphy, 1998), and are associated with both physical and psychological aggression for males (Murphy & Hover, 1999; Murphy, Taft, & Echardt, 2007) and also reported in the earlier study that Personality features also distinguish personal violent from non- personal violent men, with personal violent men showing more personality disorder features than non- personal violent men (Hamberger et al., 1996; Lawson, Weber, Beckner, Robinson, Marsh, & Cool, 2003).

(2) Prediction of 'Age' on Subscale of YPI:

(a) Prediction of 'Age' on the Problem-A: Family Problems subscale of the YPI : The significant independent effect of 'Age' was found on Problem-A (M=1683=60, and F. ratio= 31.09; $p < .01$) that had confirmatory research as some developmentalists believed that the sense of uniqueness, invincibility, and egocentrism generates wreckless behavior of adolescents including drag racing, drug use, suicide (Dolcini & others, 1989)**.** Hagan and Foster (2001) indicated that various exposures to violence are important sources of early adolescent role exits, which means that not only a juvenile can witness violence within the family but on the outside as well.

(b) Prediction of 'Age ' on the Problem-B: School/College Problems subscale of the YPI : The significant independent effect of 'Age' was found on Problem -B of the subscales of YPI (M=160.11,and F. ratio=3.90; $p < .05$), the finding validated that parental warmth and acceptance have been found to be associated with better academic achievement, higher levels of reported self-reliance, and fewer problem behaviors in African American families in both high and low-risk communities (Gonzales, Cauce, Friedman, and Mason, 1996; Steinberg, Mounts, Lamborn, and Dornbusch, 1991; Taylor and Roberts, 1995). Other study reported that youth who are at high risk for problems, such as academic difficulties, substance abuse and early sexual behavior, each of which may have serious long term consequences (Dryfoos, 1990; Hawkins, 1995; Howell, 1995).

(3) Prediction of 'Gender x Ecology' on the subscale of YPI:

(a) *Prediction of* 'Gender x Ecology' *on the Problem-* A: Family Problems was found (M=403.80, and F. ratio=7.46; $p < .01$). Youniss and Smollar (1985) found that adolescents' perceived their fathers to be authority figures who provided advice on practical matters and guidelines for behavior, whereas they perceived their mothers to be a combination of authority and equality, intimacy, and conflict, and parenting differs by the age of the adolescent (Dix, Ruble, Grusec, & Nixon, 1986; Paikoff & Brooks-Gunn, 1991; Smollar & Youniss, 1989). Barber (2002) found higher levels of psychological control reported by males than females, by younger than older children, among lower than upper socioeconomic status families, and by ethnic minority than European American families.

(b) *Prediction of 'Gender x Ecology' on the Problem-B: School/College Problems subscale of the YPI* (M=203.74, and F. ratio=4.97; $p < .05$) got validation of the earlier studies that African American adolescent girls and their mothers reported conflicting expectations for autonomy and closeness that stem from the hope that daughters will grow up self-reliant yet retain the expected loyalty and attachment to family and community (Cauce et al., 1996). It was also reported that both lower socioeconomic status and single parenthood have been linked to higher levels of behavioral problems in children (Hetherington & Clingempeel, 1992; Huston, McLoyd, & Garía Coll, 1994) and more negative parenting (Conger et al., 1992; Hoff-Ginsberg & Tardif, 1995; Jenkins, Rasbash, & O'Connor, 2003). Other study also reported that socioeconomic status, family structure, and maternal age can either directly or indirectly affect the quality of family relationships and, more specifically, parent–child relationships (e.g., Conger et al., 1994; McLoyd, Jayaratne, Ceballo, & Borquez, 1994).

(4) Prediction of 'Ecology x Age Group' on Problem –A and problem –D of the subscale of YPI:

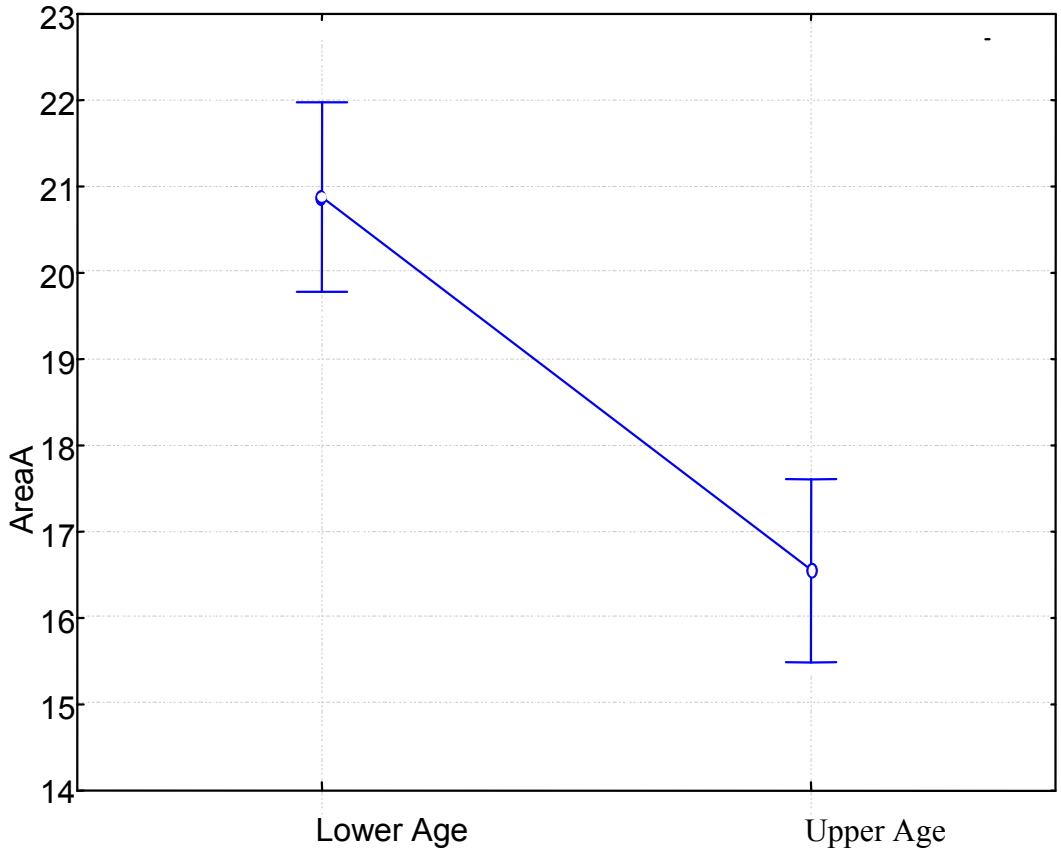
(a) The significant independent effect of 'Ecology x Age Group' was found on Problem –A: Family Problems (M=1195.50, and F. ratio=22.07; $p < .01$) got the supporting evidences that higher levels of psychological control reported by males than females, by younger than older children, among lower than upper

socioeconomic status families, and by ethnic minority than European American families (Barber, 2002).

(b) The significant independent effect of 'Ecology x Age Group' was found on Problem-D: *Personal Problem and Over sensitivity* (M=315.80 and F. ratio= 5.94; $p < .05$) that children who inherit predispositions toward criminal behavior (Cloninger et al., 1982; Mednick et al., 1987), schizophrenia (Tienari et al., 1994), or alcoholism (Cloninger et al., 1982; McGue, 1999) are more likely to fall prey to these risks if they are reared in adverse circumstances, shared environmental influence has been found to contribute substantially to adolescent delinquency (Rowe, 1997) and higher levels of psychological control reported by younger than older children, among lower than upper socioeconomic status families, and by ethnic minority than European American families (Barber, 2002).

The Fisher's LSD shows greater mean score for Lower Age Group (M=20.87) as compared to Upper Age Group (M= 16.63).The significant mean differences (M1-M2 = 4.244; $p < .01$.) is depicted in Figure – 15.

Figure - 15: Fisher's LSD for the significant effect of 'Age group' on Problem-A: *Family Problem* in Youth Problem Inventory Scale.



(1). Prediction of Fisher's LSD for 'Gender x Ecology' on Problem -A : Family problems of YPI.

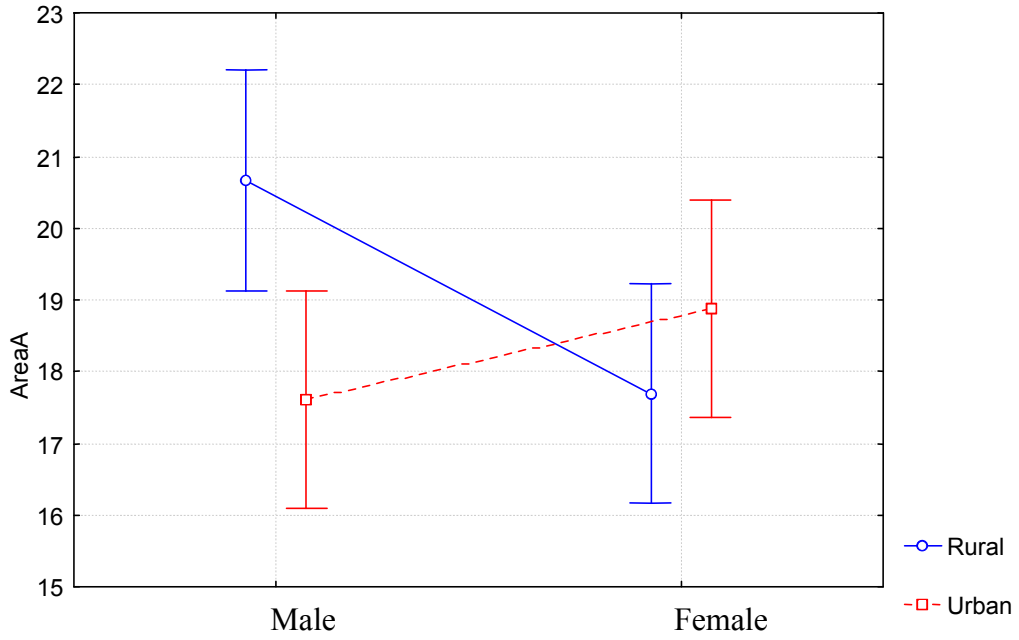
Table- 27: The Fisher's LSD means comparison of Male Urban, Female rural, Female urban and Male rural on Problem A: Family Problem of the sub-scale of YPI.

Gender x Ecology	Male-Urban (M1=17.61)	Female-Rural (M2=17.69)	Female-Urban (M3=18.88)	Male-Rural (M4=20.62)
Male-Urban		0.075	1.267	3.011 **
Female-Rural			1.189	2.933 **
Female-Urban				1.744

Table- 27, shows that the Fisher's LSD manifested greater mean score for; (1) Male-Rural (M4=20.62) as compared to Male-Urban (M1=17.61)at significant M4-M1= 3.011; $p < .01$.(2) Male-Rural (M=20.62) was also greater than the mean score of Female-Rural (M3=17.69) at significant (M4-M2 = 2.933; $p < .01$) which are depicted in Figure – 15.

The finding received assenting evidences that the African American families extremely high value is placed on respecting, obeying, and learning from elders in the kinship network and community (Willis, 1992), parents indicated that they viewed conflicts with children in terms of respect for parents, obedience to authority, and the importance of cultural traditions (Smetana & Gaines, 1999; Smetana, Crean, & Daddis, 2002) , and that strongly suggests that the operative of environmental influences (Harris, 1998) as shared environmental influence has been found to contribute substantially to adolescent delinquency (Rowe, 1997).

Figure - 16: Mean plots for the significant of interaction effect of 'Gender and Ecology' on Problem A: Family Problem of the sub-scale of YPI..



(2) Prediction of Fisher's LSD for 'Ecology x Age' on Problem-A: Family Problems:

The fisher's LSD was computed to discern the independent effect of 'Ecology x Age' on problems -A: Family problems of YPI as shown in Table - 28.

Table – 28: The Fisher's LSD Means comparison of Urban upper age, Rural upper age, Rural lower age, and Urban lower age group on Problem A: Family Problem of the sub-scale of YPI .

Ecology X Age Group	Urban-U-Age M1=14.26)	Rural-U-Age (M2=18.89)	Rural-L-Age (M3=19.44)	Urban-L-Age (M4=22.23)
Urban-U-Age		4.638 **	5.186 **	7.977 **
Rural-U-Age			0.548	3.339 **
Rural-L-Age				2.791 *

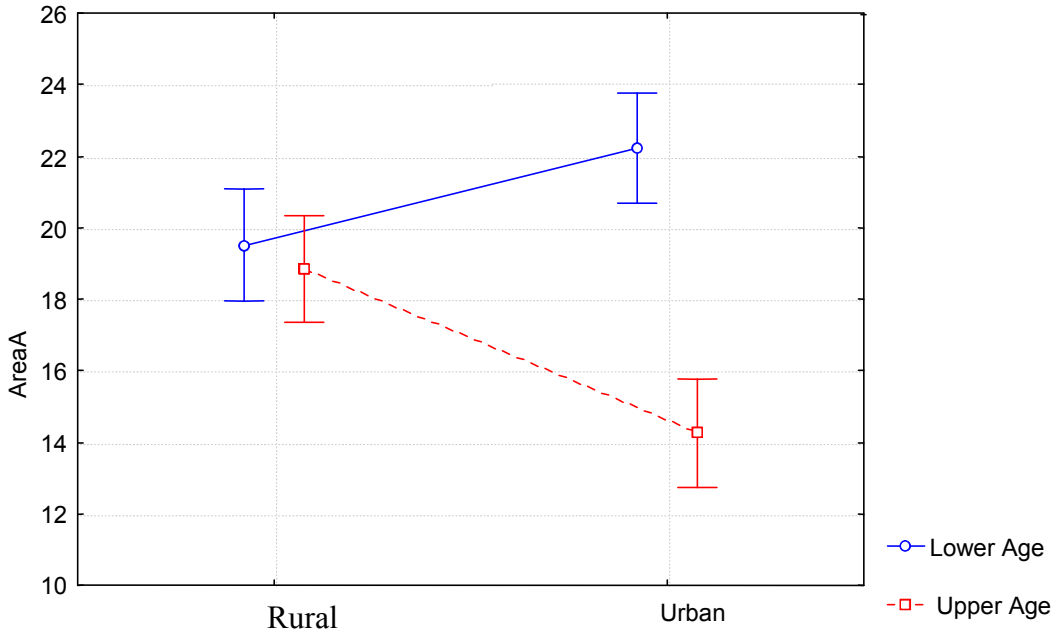
Table - 28 shows that the mean score of:

(1) Urban-Upper Age Group (M1=14.26) was lower than Rural upper age (,M2= 18.89) at significant level (M1-M2= 4.64; p< .01 level, Rral lower (M3= 19.44) at significant level (M1-M3= 5.19; p< .01' Upper lower age (M4= 22.23) at significant (M1-M4= 7.98; p < .01 level).

(2) Rural-Upper Age Group (M2=18.89) lower than Upper lower age (M4=22.23) at significant level (M2-M4= 3.34; p<.01).

(3) Rural-Lower Age Group (M3=19.44) was lower than Urban lower age (M4=22.24) at significant level (M3-M4= 2.79; p < . 05 level. which are depicted in Figure -17.

Figure -17: Mean plots for the significant of interaction effect of 'Ecology and Age Group' on Problem-A: Family Problem of the sub-scale of Youth Problem Inventory Scale.

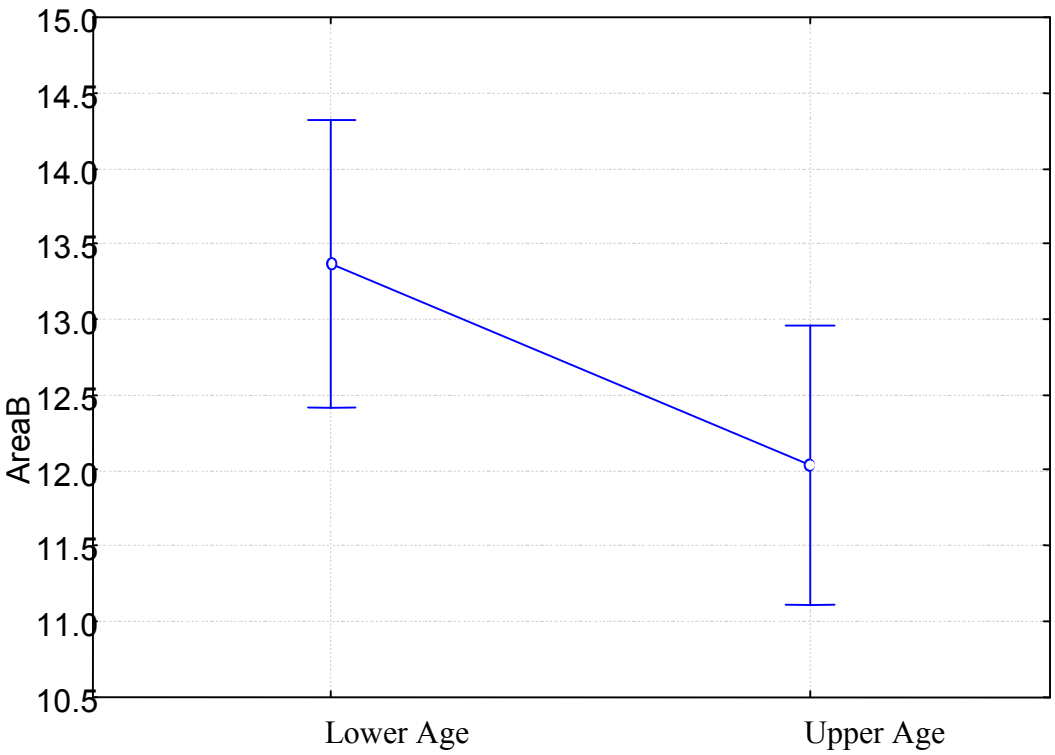


For the significant independent effect and interaction effect for the 2 x 2 x 2 (2 Gender x 2 Ecology x 2 Age group) Factorial design on Problem-B (School and Colleges Problem) in the Youth Problem Inventory Scale were computed, and the highlighted results were presented sequentially.

(3) Prediction of Fisher's LSD for 'Age' group on factor –B: School and College Problems:

The Fisher's LSD show greater mean score for Lower Age Group (M=13.34) than mean score of Upper Age Group (M=12.07).The significant mean differences (M1-M2 = 1.264; p > .05.) is depicted in Figure -18.

Figure -18: Mean plots for the significant of interaction effect of ‘Age Group’ on Problem-B: School and Colleges Problem of the sub-scale of Youth Problem Inventory Scale.



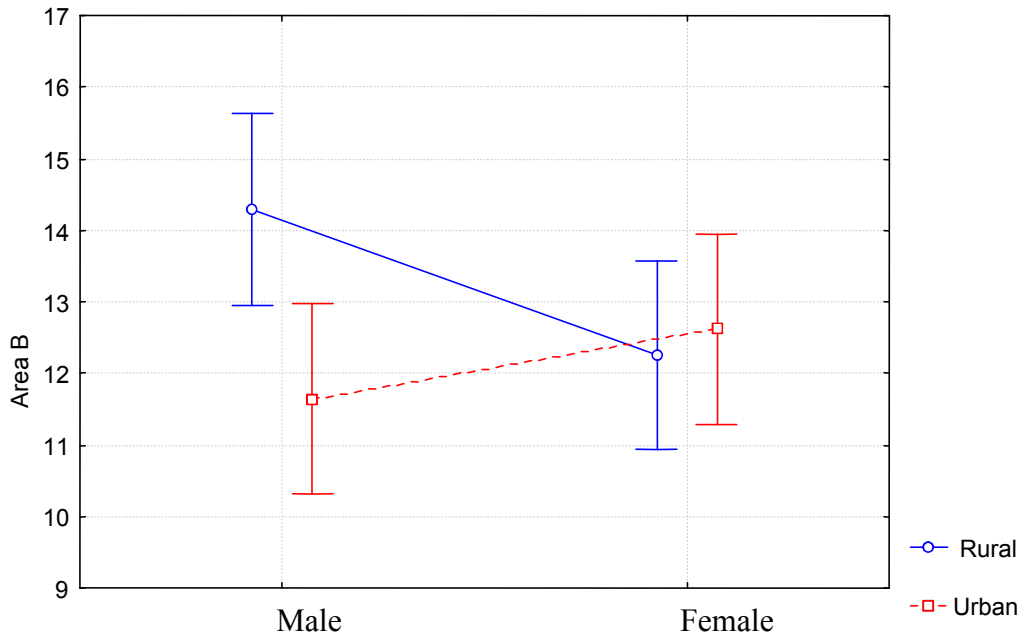
(4) Prediction of Fisher's LSD for 'Ecology and Gender' on factor – B: School and College Problems:

Table- 29: Fisher's LSD for the significant effect of 'Ecology and Gender' on Problem- C: *School/College Problems* in YPI Scale

Gender x Ecology	Male-Urban (M1=11.64)	Female-Rural (M2=12.26)	Female-Urban (M3=12.62)	Male-Rural (M4=14.23)
Male-Urban		0.612	0.978	2.589**
Female-Rural			0.366	1.977**
Female-Urban				1.611
Male-Rural				

For 'Gender x Ecology' as shown in Table – 29. The Fisher's LSD shows greater mean score for Male-Rural (M4= 14.23) than mean score of Male-urban (M1= 11.64 significant level (M4-M1= 2.59; $p < .01$), and also greater than Female rural samples (M2= 12.26) at significant level (M4-M2 = 1.98; $p < .01$ level, which are diagrammatically represented in Figure -19.

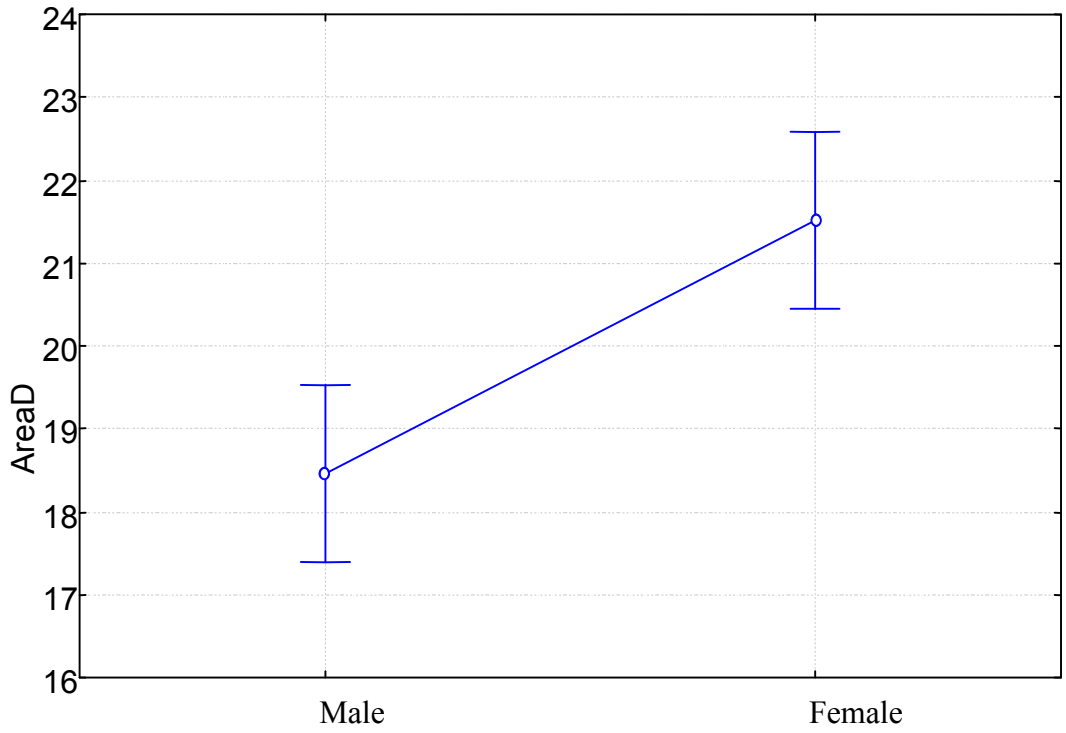
Figure - 19: Mean plots for the significant of interaction effect of 'Gender and Ecology' on Problem-B: School/College Problems of the sub-scale of the Youth problem Inventory Scale



(5) Prediction of Fisher's LSD for 'Gender' on factor – D: Personal Problem Problems:

For the significant independent effect of' Gender' for the 2 x 2 x 2 (2 Gender x 2 Ecology x 2 Age Group) Factorial design on Problem-D-Personal Problem in Youth Problem Inventory Scale, the Fisher's LSD manifested greater mean score for Female (M=21.51) than Male (M=18.46).The significant mean differences (M1-M2 = 3.050, $p < .01$) is depicted in Figure -20.

Figure - 20: Mean plots for the significant of interaction effect of 'Gender' on Problem-D: Personal problem and Over sensitivity of the sub-scale of the Youth Problem Inventory Scale.



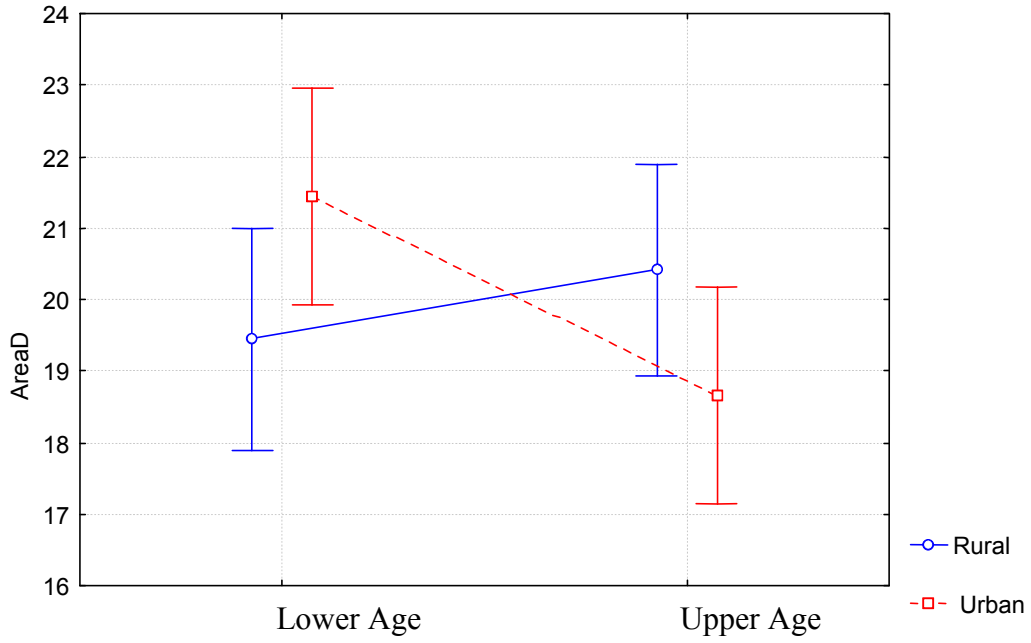
(6) Prediction of Fisher's LSD for 'Ecology and Age' on Factor –D: *Personal Problem and Over sensitivity* of the sub-scale of the Youth Problem Inventory Scale:

Table - 30: Fisher's LSD Means comparision of the Urban upper age, Rural lower age, Rural Upper age and Urban lower age groups for the significant effect of 'Gender' on Problem-D: *Personal Problem and Over sensitivity* of the sub-scale of the Youth Problem Inventory Scale.

Ecology x Age Group	Urban-U-Age	Rural-L-Age	Rural-U-Age	Urban-L-Age
Urban-U-Age		0.809	1.695	2.777 *
Rural-L-Age			0.886	1.977
Rural-U-Age				1.082

As shown in Table - 30, for 'Ecology x Age Group,' the Fisher's LSD shows greater mean score for Urban-lower Age Group (M=21.43) than Urban-Upper Age Group (M=18.66).The significant mean differences (M1-M2 = 2.78; .01 < p < .05) is shown in Figure- 21.

Figure -21: Mean plots for the significant of interaction effect of 'Ecology and Age Group' on Problem-D: Personal Problem and Over sensitivity.



3. Raven's Standard Progressive Matrices :

To discern the independent and conjoint significant effect of the 'Ecology', 'Gender', and 'Age' group on subscale of RSPM was computed, and the outcomes were discussed sequentially and presented in proceeding.

Predictability of 'Age', 'Gender', and 'Ecology' on the test scores of the RSPM among Mizo Adolescents.

The Value of Mean, SD for the cognitive function of the Mizo adolescent for the comparision groups were presented in Table – 31.

Table – 31: Showing the Mean and SD values of the RSPM for .Ecology', 'Gender' and 'Age' group of the whole samples.

Ecology	Gender	Age	Source of Variation	Cognitive measures of RSPM
RURAL	Male	Lower	Mean	30.76
			SD	10.37
		Upper	Mean	40.82
			SD	10.86
	Female	Lower	Mean	37.96
			SD	8.87
		Upper	Mean	45.91
			SD	9.54
URBAN	Male	Lower	Mean	34.91
			SD	9.73
		Upper	Mean	37.24
			SD	12.14
	Female	Lower	Mean	37.49
			SD	9.41
		Upper	Mean	44.49
			SD	8.37

The ANOVA for prediction of independent and interaction effect of 'Age', 'Gender', and 'Ecology' on RSPM was computed and the outcomes were presented in the Table – 32 and also discussed sequentially in the preceding:

Table -32: Results of ANOVA prediction of independent and interaction effect of the on the behavioural measures of RSPM.

Sources of variation	RSPM		
	Df	Sum of Mean Sq	F-Ratio
Gender	1	9.6	0.10
Ecology	1	2745.9	27.57 **
Age Group	1	4199.0	42.15**
Gender X Ecology	1	34.3	0.34
Gender X Age Group	1	423.2	4.25 *
Ecology X Age Group	1	36.8	0.37
Gender X Ecology X Age Group	1	257.4	2.58
Error		35062.90	

The ANOVA of RSPM revealed that:

(1) The significant independent effect of 'Ecology' (F-ratio = 27.57 at .01 level). The finding received confirmatory evidences that the ecological setting such as urban and rural were having different level of advantages that may specify the educational advantages and disadvantage leading to different level of Intelligence. The relationship between poverty and poorer child cognitive and/or language development among young children was first identified by American researchers in the late 1960s (Honzik, 1967; Werner, Simonian, Bierman & French, 1968) and has been repeatedly demonstrated in the United States since that time (Brooks-Gunn, Klebanov & Duncan, 1996. Studies have found significant correlation

between socioeconomic status and intelligence (Seifer, 2001), and the intelligence of the children's in South Africa whose schooling was delayed for four years because teachers were not available (Ramphal, 1969). Other study reported that the way that parents communicate with children and the support parents provide in which children live and the quantity of schools may contribute for intelligence (Ceci & Gilstrap, 2000; Christian, Bachnan, & Morrison, 2001).

(2) The independent 'Age' group effect was also bring forward (F-ratio = 42.15 at .01 level) that the intelligence level and age group different was well accepted in every society among the normal development persons. Although, most researchers agreed that heredity does not wholly determine intelligence (Gottlieb & Blair, 2004; Gottlieb, Washlsten, & Lickliter, 2006), and believed that modifications in environment can change their IQ scores considerably (Cambell & others, 2001). Hereditary influences on intelligences increase with age, as we grow older, our interactions with the environment are shaped less by the influence of others and the environment on us and more by our ability to choose our environment to allow the expression of genetics tendencies (Neisser & others, 1996).

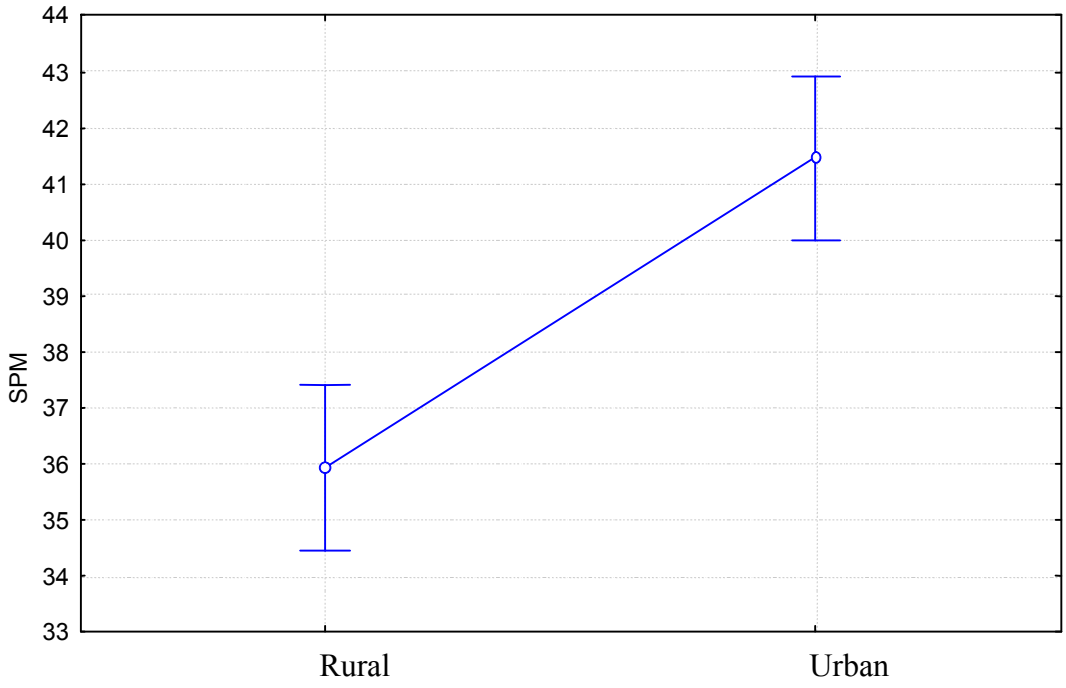
(3) The significant interaction effect of 'Gender x Age' (F-ratio = 4.25 at .05 level) was evinced as the core of intelligence consists of complex cognitive processes, and a child's intellectual ability increases with age (Binet, 1904). Similarly, different age group has different value, attitudes, interest and demand according different problems also. Radloff (1991) also found that adolescents reported more symptoms of depression than the general population (M = 16.60) for junior high school students and M = 17.88 for high school students). Those problems may be affected by the maternal age, education, employment, and total family income affect maternal empathy, corporal punishment, parental distress, and the identification of the infant as a 'difficult child' (S.Cain, Wilson & Coms-Orme, 2005). Colom et al. in 2002 showed that the difference observed is in "ability in general", not in "general ability", and that the average sex-difference favoring males must be attributed to specific group factors and test specificity. Cahan and Cohen, found that older children in a grade tended to score slightly higher than their younger classmates but importantly they found that children who are in a higher

grade but are virtually the same age as children in the grade lower have higher IQ scores. It is postulated this is due to the extra year of schooling.

The Fisher's LSD results for RSPM:

The Fisher's LSD for the significant independent effect of 'Ecology on RSPM shows greater mean score for Urban (M=41.46) as compared to the mean score of Rural (M=36.16).The significant mean differences (M1-M2 = 5.305; $p < .01$) is depicted in Figure – 31 received confirmatory evidence that children who grow up in low-income families are at a higher risk to be delayed in cognitive development than children who grow up in middle- or high-income families (McWayne, 2004), also many studies support the idea that the malnutrition present in many low-income households contributes to a decrease in mental development (Ricciuti, 1993).

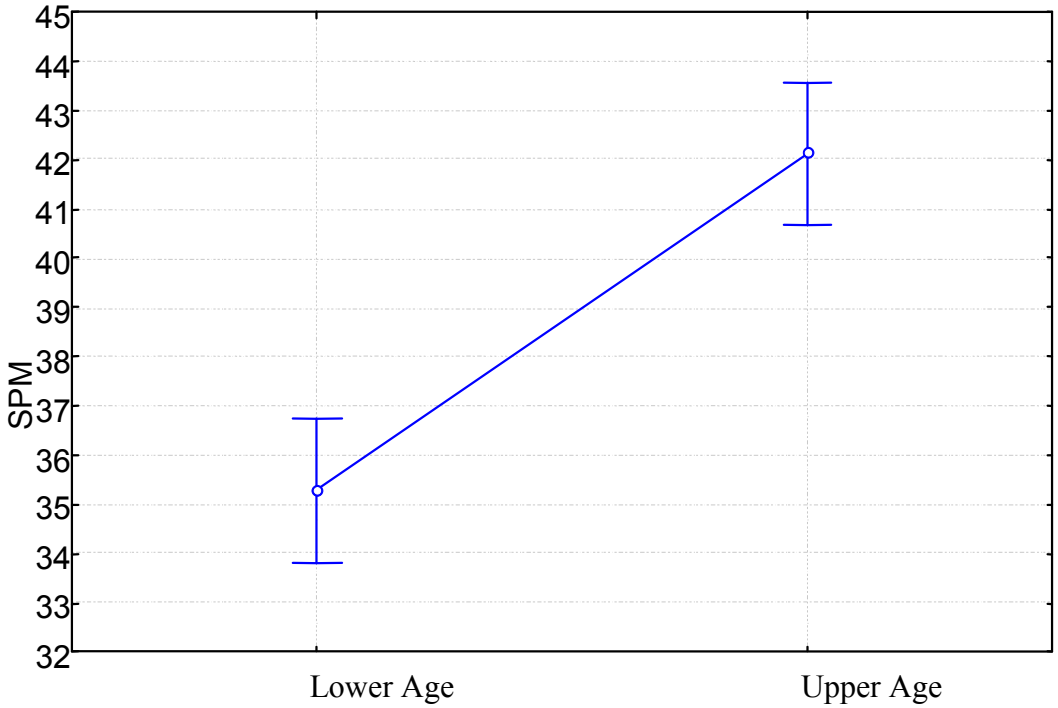
Figure-22: Mean plots for the significant of interaction effect of 'Ecology' on RSPM (including all sets).



Prediction of Fishers LSD for 'Age' group on RSPM.

For Age Group on RSPM, the Fisher's LSD manifested greater mean score for Upper Age Group (M=42.09) than the mean score of Lower Age Group (M=35.38).The significant mean differences (M1-M2 = 6.706; $p < .01$ is depicted in Figure-32.

Figure-23: Mean plots for the significant of interaction effect of 'Age Group' on the scale of RSPM (including all sets).



Prediction of Fishers LSD for 'Gender x Age Group' group on RSPM:

Table - 33: Fisher's LSD means comparison for the significant effect of 'Gender x Age Group' on Total of Factor ABCDE of the sub-scale of RSPM.

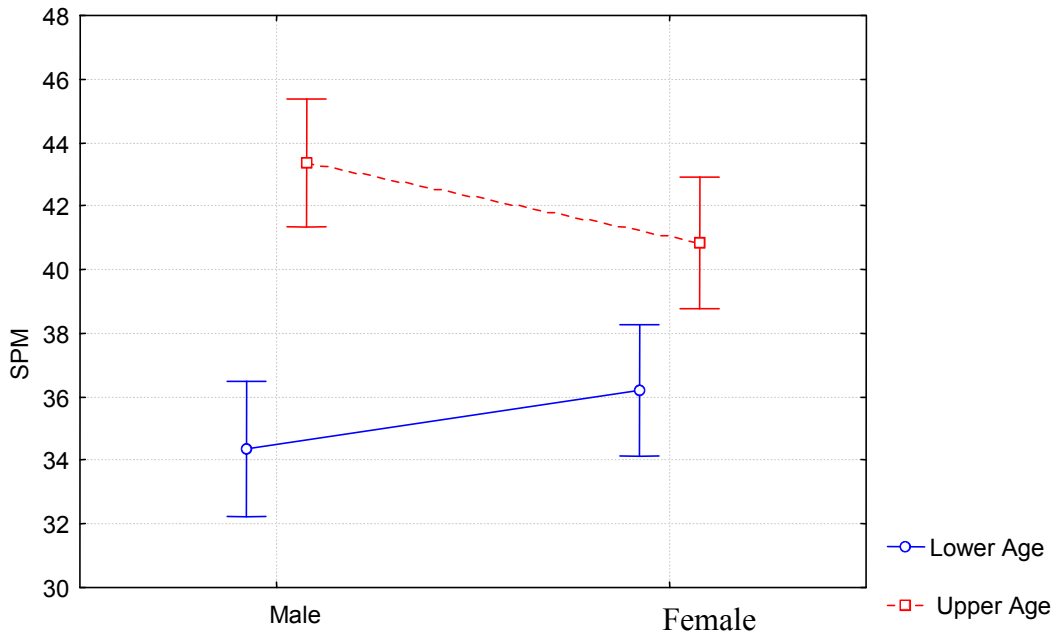
Gender x Age group	Male-L-Age	Female-L-Age	Female-U-Age	Male-U-Age
Male-L-Age		1.677	6.344**	8.732 **
Female-L-Age			4.667**	7.055**
Female-U-Age				2.388

As shown in Table 32. The Fisher's LSD for the significant independent effect of 'Gender x Age Group on RSPM-total of all factors' shows greater mean score for (1) Female –Upper Age Group (M2=40.87), and (2) Male-Upper Age Group (M3=43.26) as compared to the mean score of Male-Lower Age Group (M1=34.52). Their significant mean differences with Male-Lower Age Group (M1-Mn…) are as follows: - (1) M1-M2 = 6.344; $p < .01$, and (2) M1-M3 = 8.732; $p < .01$ had confirmatory evidence that men and women have statistically significant differences in average scores on tests of particular abilities (Douglas, 2006) Studies also illustrate consistently greater variance in the performance of men compared to that of women (Deary, 2007). The psycho-physiological structure of the verbal and nonverbal intelligence of children differing from one another in academic progress has been studied at the initial (six to seven years of age) and the last (nine to ten years of age) stages of studying at primary school, and the age-related characteristics of the development and formation of a system of cognitive functions determining the efficiency of verbal and nonverbal activities in schoolchildren differing in academic progress have been determined (Bezrukkikh, 2006).

The mean scores of (1) Female –Upper Age Group (M2=40.87), and (2) Male-Upper Age Group (M3=43.26) are higher than the mean score of Female-Lower Age Group (36.20).Their significant mean differences with Female-Lower Age Group (M1-Mn…) are:- (1) M1-M2 = 4.667; $p < .01$, and (2) M1-M3 = 7.055; $p < .01$.

The results are depicted in Figure -24.

Figure -24: Mean plots for the significant of interaction effect of 'Gender and Age Group' on the scale of RSPM (including all sets)..



Prediction of the Youth Problems from Parenting Styles:

Multiple regression analyses among the levels of scales and subscales of the present study were computerized in order to determine the antecedents and consequences relationship among the behavioural measures of the theoretical construct as envisioned. The multiple regression analyses were computed and were jointly taken together as the predictor and the criterion for all of the scales (Parenting styles) to predict the predictor and the criterion measures. The R, R-square, Beta-values, significant F-change, Durbin Watson were presented together in Table - 34.

Table -34: R-Square, R-Square change and Durbin Watson Statistics in the prediction of the sub-scale scores of Youth Problem Inventory from the Parenting Inventory measures.

Predictors	Criterion	R-Square	R-Square change	Durbin Watson
Pitt	*Problem-A* Family Problem	.054	.054	
Pitt,PAG		.181	.126	
Pi,PAG,BC		.181	.001	1.918
Pitt	*Problem-B* School,College Problem	.096	.096	
Pitt,PAG		.108	.012	
Pi,PAG,BC		.108	.001	1.903
Pitt	*Problem-C* Social Problem	.032	.032	
Pitt,PAG		.065	.033	
Pi,PAG,BC		.066	.001	1.923
Pitt	*Problem- D* Personal Problem	.023	.023	
Pitt,PAG		.046	.023	
Pi,PAG,BC		.046	.000	1.747

Observation of Table -34 revealed that Parental involvement (Pi) contributed 5.4 % of variance on Family Problem (Problem-A) which is supported by the ANOVA for the Progressive Model in the prediction of Problem-A, from Pi (SS = 1217.55, F = 20.49; $p < .01$). The inclusion of Psychological Autonomy Granting (PAG) in the former model revealed 13 % of changes in variances explained leading to 18 % variances explained in the prediction of Problem- A, from Pi and PAG which is also supported by the ANOVA for the model (SS = 4061.82, F = 39.35; $p < .01$). The final inclusion of Behavioural Control(BC) in the former model revealed only 0.1 % of changes in variances explained which is very small contribution and negligible for the change effecting no differences in the prediction of Problem A from Pi, PAG and BC which is also supported by the ANOVA for the model (SS = 4078.46 , F= 26.29; $p < .01$).

The relationships between parenting style and adolescent functioning have shown great heterogeneity and variability in developmental outcomes in high risk environments, though many young people manage to do well (McLoyd, Jayaratne, Ceballo, and Borquez, 1994; Taylor, 1997). Parental warmth and acceptance have been found to be associated with better academic achievement, higher levels of

reported self-reliance, and fewer problem behaviors in African American families in both high and low-risk communities (Gonzales, Cauce, Friedman, and Mason, 1996; Steinberg, Mounts, Lamborn, and Dornbusch, 1991; Taylor and Roberts, 1995). Children raised in authoritative homes, as compared to those reared in permissive or authoritarian homes, demonstrated higher levels of competence, achievement, social development, self-esteem, and mental health (Maccoby and Martin, 1983) while restrictive control, which may limit adolescents age-appropriate autonomy, has been found to be related to higher levels of problem behaviors (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994) and adolescent girls with Permissive mothers exhibited more minor delinquent behaviors than those with Authoritative mothers. The finding of this study was in congruent with the earlier studies in confirming the theoretical foundation as laid by Boumarind (1991) and with the vast literature in which researchers have concluded that adolescents experience heightened developmental outcomes when reared by authoritative parents (e.g., Dornbusch et al., 1987; Gerdes & Mallinckrodt, 1994; Steinberg et al., 1992).

In the same Table, Table -34, it is observed for Problem –B, School and College Problem that Pi contributed 10 % of variance on Problem-B which is supported by the ANOVA for the Model in the prediction of Problem-B from Pi (SS = 1438.91, F = 38.06; $p < .01$). The inclusion of PAG in the former model revealed 1 % of changes in variances explained leading to 11 % variances explained in the prediction of Problem- B from Pi and PAG which is supported by the ANOVA for the model (SS = 1611.87, F = 21.53; $p < .01$). The final inclusion of BC into the former model contributed only 0.1 % of changes which is very small and negligible for the change resulting no differences after inclusion of BC into Pi and PAG in the prediction of Problem B from Pi, PAG and BC which is also supported by the ANOVA for the model (SS = 1623.75, F = 14.43; $p < .01$).

The contribution of different subscale of parenting styles to School/College problems got confirmatory findings that parental involvement including parental values and expectations positively related to achievement outcomes (Gottfried & Gottfried, 1989; Paulson, 1994; Steinberg, Lamborn, Dornbusch, & Darling, 1992), and also authoritative parenting predicts good academic performance among European Americans (Steinberg, Dornbusch, & Brown, 1992; Steinberg, Darling, &

Fletcher, 1995), other research finding stated that behavioural control would be expected to be associated with parent-imposed consequences for misconduct and has frequently been associated with positive child and adolescent outcomes (Dishion & McMahon, 1998).

For Problem-C, Social Problem, The Table -34 shows that Pi contributed 3.2 % of variance on Problem-C which is supported by the ANOVA for the model in the prediction of Problem-C , from Pi (SS = 61.43, F = 11.97; p < .01). The inclusion of PAG into the former model revealed 3.3 % of change in variances explained resulting 7 % variance explained in the prediction of Problem-C from Pi and PAG which is supported by the ANOVA for the model (SS = 123.69, F = 12.44; p < .01). The final inclusion of BC into the former model revealed that contribution is only 0.1 % which is negligible for the change leading to the final inclusion of BC has no significant effect on Pi and Pag in the Problem-C which is also supported by the ANOVA for the model in the prediction of Problem-C from Pi, Pag and BC (SS = 125.78, F = 8.42; p < .01).

The present finding had confirmatory evidences in the available literature that children raised in authoritative homes as compared to those reared in permissive or authoritarian homes demonstrate higher levels of competence, achievement, social development, self-esteem, and mental health (Maccoby and Martin, 1983) and parental firm control has been found related to lower levels of problem behaviors in working-class and disadvantaged African American teens (Steinberg, et al., 1991; Taylor and Roberts, 1995) but restrictive control may limit adolescents age-appropriate autonomy that leads to higher levels of problem behaviors (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994).

Permissiveness and ineffective parenting (poor problem solving skills, weak supervision skills, parent-adolescent conflict) and sibling conflict (hitting, fighting, stealing, cheating) at 10-12 years was linked to antisocial behavior and poor peer relations from 12-16 years of age (Bank, Burraston, & Snydei, 2004), while restrictive control which limit appropriate autonomy related to higher levels of problem behaviors (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994). It is also reported that parents who remain actively engaged as parents are going to be more

effective than parents who disengage, but within this wide range, effectiveness of parenting practices is likely to depend in part on adolescent socialization, along with other factors (such as personality and other social and environmental influences) (Maccoby & Martin (1983), Adalbjarnardottir & Hafsteinsson (2001) also found that adolescents who perceived their parents to be authoritative were least likely to use the drugs examined in the study, while those who perceived their parents to be uninvolved were most likely to engage in drug use.

The Table-34 revealed that Pi contributed 2.3 % variance on Personal Problem(Problem-D) which is supported by the ANOVA for the model in the prediction of Problem-D from Pi(SS =461.85, F = 8.40; $p < .01$). The inclusion of PAG into the model shows again 2.3 % changes of variance explained resulting to 5 % variances explained in the prediction of Problem-D from Pi and PAG which is also supported by the ANOVA for the model in the prediction of Problem –D from Pi and PAG (SS = 928.06, F = 8.63; $p < .01$). The final inclusion of BC into the former model has no contribution for the change resulting 5 % variance explained so far after inclusion of BC in the prediction of Problem D from Pi, PAG and BC which is supported by the ANOVA for the model(SS = 928.41, F = 5.70; $p < .01$).

The finding was in substantiate support that children raised in authoritative homes, as compared to those reared in permissive or authoritarian homes, demonstrate higher levels of competence, achievement, social development, self-esteem, and mental health (Maccoby and Martin, 1983), and mothers low on Parental Warmth, supervision and Monitoring have the most negative outcomes. Substantial research confirms that as well as being a cause of child behavior problems, ineffectual parenting practices can also be the result of unresponsive and uncontrolled children (Patterson, Reid, & Dishion, 1992). And it was also reported that Psychological autonomy is a fundamental aspect of child development related to aspects of self-control and related self processes, mastery motivation, and competence (Bridges, 2003; Maccoby & Martin, 1983. Many researchers have suggested that the changes in parent–child relationships that occur between late childhood and early adolescence are instigated by children's growing desire to increase their sense of autonomy and independence as children become less satisfied with parents' authority over their personal lives as they mature (Smetana, 1989).

Other research has shown that poor parent management, typified by low involvement, inadequate monitoring, and poorly articulated expectations, have been associated with precocious substance use (Distefan, Gilpin, Choi, & Pierce, 1998; Jackson, Bee-Gates, & Henrickson, 1994; Sieving, Maruyama, Williams, & Perry, 1998; Steinberg, Fletcher, & Darling, 1994) and conduct problems (Ary et al., 1999; Chung, et al., 2002; Capaldi & Short, 2003; Fergusson et al., 1996; Wiesner & Silbereisen, 2003).

From the Table -35, it is observed that Durbin Watson Test for serial correlation of the residuals and case-wise diagnostics cases meeting the selection criterion do not deviate from the normal range, all results show the normal range of residuals.

Table -35: R-Square, R-Square change and Durbin Watson Statistics in the prediction of the sub-scale scores of RSPM from the Parenting Inventory measures.

Predictors	Criterion	R-Square	R-Square change	Durbin Watson
Pitt	*Factor-total* abcde	.004	.004	
Pitt,PAG		.033	.029	
Pi,PAG, BC		.034	.001	1.295

Observation of Table- 35 revealed that Pi, PAG and BC have contributed a very small percentage of changes in the cognitive level (RSPM).

By observing Table -35 for performance record of Pi, Pag and BC for factor a, b, c, d, and e altogether (RSPM), it is seen that Pi contributed only 0.4 % of performed/variance which is supported by the ANOVA for the model in the prediction of RSPM from Pi (SS = 172.80, F = 1.46 ; p > .05).The inclusion of PAG into the former model revealed that 2.9 % changes is performed /variances explained leading to 3.3 % performed/variances explained in the prediction of all factors of RSPM from Pi and PAG which is supported by the ANOVA for the model(SS =1388.23, F = 6.02; p < .01).The final inclusion of BC into the former model has

contributed only 0.1 % change of performed/variance explained leading to 3.4% performed/variances explained which is very small and negligible for the change in the prediction of Factor a, b, c, d, and e altogether from Pi , PAG and BC which is also supported by the ANOVA for the model (SS = 1437.70, F = 4.15; p >.05).

It is observed from the said table that Durbin Watson Test in all factor. a, b, c, d, and e, the result show the normal range of residuals.

Table -36: Standardized Beta and Collinearity Statistics in the prediction of the Sub-scale scores of Youth Problem Inventory from the Parenting Inventory measures.

Predictors	Criterion	Standardized Beta	Collinearity Statistics	
			Tolerance	VIF
Pitt	*Problem-A* Family Problem	-.270 **	.853	1.172
PAG		-.358 **	.981	1.019
BC		-.029	.868	1.152
Pitt	*Problem-B* School, College Problem	-.313 **	.853	1.172
PAG		-.107 *	.981	1.019
BC		-.030	.868	1.152
Pitt	*Problem-C* Social Problem	-.191 **	.853	1.172
PAG		-.181 **	.981	1.019
BC		-.036	.868	1.152
Pitt	*Problem-D* Personal Problem	-.173 **	.853	1.172
PAG		-.154 **	.981	1.019
BC		.004	.868	1.152

** = *significant at .01 level.* * = *significant at .05 level.*

By observing Table -36, it is revealed that Parental involvement (Pi) has 27 % independent negatively effect on Family Problem, Problem-A, without considering other predictors(p < .01), Psychological Autonomy Granting(PAG) also contributed 36 % independent negatively effect on Problem- A (p < .01), whereas Behavioural Control(BC) contributed only 2.9 % which is negligible for effecting the Problem A. The result revealed that the permissive parenting styles (parental involvement) and Pag (authoritative) parenting styles will help in preventing or solving youth's personal problems as it has negative relations with youth personal problems where as behavioural control (or Authoritarian) parenting

does not have much contribution to solve the Family problems among the youth Mizo. The finding also got support in explaining the contribution of Intelligence on youth problems as authoritative parenting style has been called "inductive discipline," that it helps kids become more empathic, helpful, conscientious, and kind to others (Krevans and Gibbs 1996; Knafo and Plomin 2006) where as Authoritarian caused risky behaviors (Ginsburg et al 2004), other study also reported that Authoritative parents appeared to be more successful than authoritarian parents in preventing their 14-year old adolescents from drinking; however, there was not a significant difference between authoritative parents and authoritarian parents in their ability to prevent their 17-year old adolescents from heavy drinking and illicit drug use concluded that the authoritative parenting style is protective in regards to adolescent drug use, both concurrently and longitudinally (Adalbjarnardottir & Hafsteinsson, 2001) The other results reported that adolescents who perceived their parents as authoritative were less likely to have used each substance in the study (cigarettes, alcohol, hashish, and amphetamines) than adolescents who perceived their parents as indulgent (i.e., permissive) or neglectful (i.e., uninvolved).

For School and College Problem, Problem-B, the table shown that Pi has contributed 31 % independent negatively effect on Problem B(significant .01 level) PAG also contributed 11 % independent negatively effect on Problem B ($p < .05$). Again, BC has contributed only 3 % which is negligible for affecting the Problem B. Other research reported that adolescents experience heightened developmental outcomes when reared by authoritative parents (e.g., Dornbusch et al., 1987; Gerdes & Mallinckrodt, 1994; Steinberg et al., 1992).

It is also revealed that in the Table-35 for Social Problem, Problem C. Pi contributed 19 % independent negatively effect on Problem-C (significant at .01 level) and PAG contributed 18 % independent negatively effect on Problem C ($p < .01$), but BC contributed only 3.6 % which is negligible for effecting the Problem-C. The finding got support of research evidence that authoritarianism related with poorer social functioning (Zhou et al 2004). Latin cultures report that authoritarian parents are more likely to have kids with low social competence (Martinez et al 2007; Garcia and Gracia 2009). Parental involvement positively related to achievement outcomes (Steinberg, Lamborn, Dornbusch, & Darling, 1992);

restriction of age-appropriate autonomy related to higher levels of problem behaviors (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994).

In the same table it is seen that Pi contributed 17 % independent negatively effect on Personal Problem, Problem-D(significant at .01 level).PAG has also 15 % negatively independent effect on Problem-D ($p < .01$),whereas BC has 0.4 % positively independent effect on Problem –D which is negligible for effecting the problem-D in matching with the findings that children whose parent were permissive were more likely to suffer from low self esteem, anxiety, and depression (Drairy 2004) while authoritarian children were more prone to risky behaviors (Ginsburg et al 2004), other study reported that Psychological Autonomy Granting and Parental involvement are associated with greater social competence, autonomy, positive attitudes toward school and work, academic achievement and self-esteem, as well as with less depression, school misconduct, delinquency and drug use (Lamborn, Mounts, Steinberg & Dornbusch, 1991; Parish & McCluskey, 1992; Steinberg, Lamborn, Dornbusch & Darling, 1992; Allen & Hauser, 1996).).

From Table.37 it is observed that Tolerance and Variance Inflation Factor (VIF) values are in proper situations and no ones are deviated from the normal.

Table -37: Standardized Beta and Collinearity Statistics in the prediction of the Sub-scale scores of RSPM from the Parenting Inventory measures.

Predictors	Criterion	Standardized Beta	Collinearity Statistics	
			Tolerance	VIF
Pitt	*Factors =a+b+c+d+e (RSPM)*	.100	.853	1.172
PAG		.172	.981	1.019
BC		-.037	.868	1.152

** = *significant at .01 level.* * = *significant at .05 level.*

In Table - 37, the predictions of sub scores of RSPM from Parent Inventory measures are shown separately for different factors *RSPM.* Table.4.has shown that for all factors, factor a, b, c, d, e altogether say RSPM, PAG contributed 17 % positive independently effect on RSPM (significant at .01 level) whereas Pi and BC

contributed 10 % positive and 3.7 % negative respectively both are negligible for effecting RSPM. In conformity of this finding, Dornbusch, et al. (1987) found that authoritative parenting is positively correlated with adolescent school performance, whereas authoritarian and permissive parentings were negatively related to schooling with influences on intelligence (Ceci & Gilstrap, 2000; Christian, Bachnan, & Morrison, 2001). Steinberg, Elmen, and Mounts (1989) found that authoritative parenting among Americans facilitated academic success in adolescent children. Other studies found that academic success was negatively associated with both authoritarian (high control, low responsiveness) and permissive (low control, high responsiveness) parenting styles, whereas authoritative (high control, high responsiveness) parenting was positively associated with good grades among high school students (Dornbusch, Ritter, Leidderman, Roberts, & Fraleigh, 1987).

In Table -36 it is observed that the Collinearity Statistics viz. Tolerance and Variance Inflation Factor (VIF) are in proper position and no ones are deviated from the normal.

The overall analyses of the study highlighted the contribution of parenting styles to Adolescent problems and cognitive functions: that

(1) Parental involvement contributes 5 %, psychological autonomy granting contributes 13 % and behavioural control contributes 1% to the *family problems* of the adolescent.

(2) Parental involvement contributes 9 %, psychological autonomy granting contributes 1 % and behavioural control was negligible to the *School and college problems* of the adolescent.

(3) Parental involvement contributes 3 %, psychological autonomy granting contributes 3 % and behavioural control contributes 1% to the *Social problems* of the adolescent.

(4) Parental involvement contributes 2 %, psychological autonomy granting contributes 2 % and behavioural control was negligible to the *Personal and Over Sensitivity problems* of the adolescent.

(5) Parental involvement contributes 4 %, psychological autonomy granting contributes 29 % and behavioural control contributes 1% to the cognitive functioning (intelligence) of the adolescent.

The results revealed the different parenting styles relation to the Adolescent problems and cognitive functions such as:

(1) **For Family Problem**, *Parental involvement* was negatively significant related (r = -.27**), revealed that when parental involvement increase family problems of the child will be decreased and the finding got confirmatory evidences in the available literature that adolescent girls with permissive mothers exhibited more minor delinquent behaviors than those with authoritative mothers (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994); other study reported that Low Parental involvement in adolescent relationships with peers is strongly related to association with antisocial peers, and is occasioned by such factors as parental antisocial behavior, parental transitions, and poverty (e.g. Eddy et al ., 2001). A positive parent-child relationship and parental involvement have been found to be protective among at-risk children (Cowen, Wyman, Work, & Parker, 1990), and Stouthamer-Loeber et al. (1993) found a positive relationship with parents to predict non-delinquency; *psychological autonomy granting* negatively significant (r = -. 36*) and this finding was in confirmatory to the earlier finding that parental warmth and acceptance have been found to be associated with better academic achievement, higher levels of reported self-reliance, and fewer problem behaviors in African American families in both high and low-risk communities (Gonzales, Cauce, Friedman, and Mason, 1996; Steinberg, Mounts, Lamborn, and Dornbusch, 1991; Taylor and Roberts, 1995); Other studies suggest that authoritative parenting is associated with lower rates of problem behaviors than autocratic, permissive or uninvolved parenting (Steinberg, 1991). Among American youth, warm parental interactions are associated with effective problem solving ability in both the adolescent and the family as a whole; however, hostile interactions are associated with destructive adolescent problem solving behaviors (Ge, Best, Conger & Simons, 1996a; Rueter & Conger, 1995). Similarly, among German adolescents, parental behaviors marked by approval and attention to the positive behavior of the youth is associated with an adolescent who feels he or she is capable of controlling events that can affect him or her (Krampen, 1989); and *behavioural control* contributes some but not at significant level while restrictive control, which may limit adolescent's age-appropriate autonomy, has been found to be related to higher levels

of problem behaviors (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994), with the family problems of adolescent.

(2) **For School and College Problem**, *Parental involvement* was negatively significant related (r = -.31**) and the finding was in congruent with the earlier finding that parental involvement positively related to achievement outcomes (Steinberg, Lamborn, Dornbusch, & Darling, 1992); Other study reported that parental involvement, encouragement of psychological autonomy, and demands for age-appropriate behaviour combined with limit setting and monitoring (i.e. Authoritative parenting) contribute to good psychosocial, academic and behavioural adjustment among adolescents (Baumrind, 1971, 1991; Steinberg, Dornbush & brown, 1992; Steinberg, Darling & Flatcher, 1995); *psychological autonomy granting* negatively significant (r = -. 11*) and the finding got confirmatory findings that authoritative parenting predicts good academic performance among European Americans (Steinberg, Dornbusch, & Brown, 1992; Steinberg, Darling, & Fletcher, 1995), and Moreover, when parents are attuned to their child's development and support his or her autonomy in decision making, the youth is better adjusted and gains in self esteem across the junior high school transition (Lord, Eccles, & McCarthy, 1994) The children of authoritative parents are found to be more competent, both socially and academically (Baumrind, 1989 ; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987 ; Lamborn, Mounts, Steinberg, & Dornbusch, 1991), also reported that authoritative parenting was found to have a positive impact on academic adjustment and adolescents with emotional, and caring environment associated with open communication may have an advantage when making the transition into a college environment as they have achieved greater mastery and self-regulation of their environment while growing up (Brooks, 1996); and *behavioural control* contributes some but not at significant level, with the school and college of adolescent. Recent work has demonstrated that the effects of parenting style differ for different sub cultural groups. Asian American parents, for example, have the least authoritative and most authoritarian child-rearing style of the sub cultural groups that have been studied; yet their children have the highest school achievement (Dornbusch et al., 1987 ; Steinberg, Dornbusch, & Brown, 1992) but not found in the present study.

(3) **For Social Problem**, *Parental involvement* was negatively significant related (r = -.19**)and the finding has substantial research confirms that as well as being a cause of child behavior problems, ineffectual parenting practices can also be the result of unresponsive and uncontrolled children (Patterson, Reid, & Dishion, 1992. Other research stated that children whose parent were permissive were more likely to suffer from low self esteem, anxiety, and depression (Drairy 2004); *psychological autonomy granting* negatively significant (r = -. 18**) and the finding got substantiate support that children raised in authoritative homes, as compared to those reared in authoritarian homes, demonstrate higher levels of competence, achievement, social development, self-esteem, and mental health (Maccoby and Martin, 1983); and other study also reported that Authoritative parents appeared to be more successful than authoritarian parents in preventing their 14-year old adolescents from drinking and concluded that the authoritative parenting style is protective in regards to adolescent drug use, both concurrently and longitudinally (Adalbjarnardottir & Hafsteinsson, 2001); and *behavioural control* contributes some but not at significant level, with the social problems of adolescent.

(4) **For Personal and Over Sensitivity Problem**, *Parental involvement* was negatively significant related (r = -.17**) find authenticated to the earlier finding that children who were reared in permissive demonstrate high levels of competence, achievement, social development, self-esteem, and mental health (Maccoby and Martin, 1983); *psychological autonomy granting* negatively significant (r = -. 15**) authoritative parenting style helps kids to become more empathic, helpful, conscientious, and kind to others (Krevans and Gibbs 1996; Knafo and Plomin 2006); and *behavioural control* contributes some but not at significant level and the earlier finding mentioned that authoritarianism related with poorer social functioning (Zhou et al 2004), with the personal and over sensitivity problems of adolescent.

(5) **For measuring cognitive functioning**, *Parental involvement* was positively significant related (r = .10**) .this finding got confirmation of other study reported that those reared in permissive demonstrate high levels of competence, achievement, social development (Maccoby and Martin, 1983), *psychological autonomy granting* negatively significant (r = .17**) this finding was in

confirmatory to the earlier finding that parental warmth and acceptance associated with better academic achievement in African American families in both high and low-risk communities (Gonzales, Cauce, Friedman, and Mason, 1996; Steinberg, Mounts, Lamborn, and Dornbusch, 1991; Taylor and Roberts, 1995); and *behavioural control* contributes some but not at significant level and other studies found that academic success was negatively associated with authoritarian (Dornbusch, Ritter, Leidderman, Roberts, & Fraleigh, 1987) with the cognitive functioning (intelligence) of adolescent. Other research finding also stated that authoritative parenting related with children's academic achievement and pro-social behavior. Dornbusch, et al. (1987) found that authoritative parenting is positively correlated with adolescent school performance, whereas authoritarian and permissive parentings are negatively related.

In conclusion, the overall analyses of the behavioural measures (as incorporated in the present study provided that (i) empirical basis sufficient enough to conclude their replicability in the projected population: substantial item-total coefficient of correlation (and the relationship of the specific items of the specific scales as index of the inter-consistency), reliability index (Cronbach alpha) and the relationship between the sub-scales /sub factors measures of each of the behavioural measures, (ii) the relationships and the factors structure of the behavioural measures, as expected by theory, and the theoretical expectations formulated for the conduct of the present study, (iii) regression analysis and the resulting ANOVA highlighted sufficient significant F-ratios at each level of the deletion of the predictor (the independent variable) in the prediction of each sub scale /sub factors measures of the dependent variables, (iv) the relationships of the youth problems and parenting styles, and parenting styles with cognitive functioning, (v) the results of ANOVA 2x2x2 (2 ecology x 2 gender x 2 age) provided empirical backgrounds relating to the causal effects of ‘gender’, ‘ecology’ and ‘age’ level on measures of the behaviour. The parenting styles emerged to portray their effect on various areas of adolescent problems and cognitive function.

The result manifested that the independent effect and interaction effect of the independent variables ‘Ecology’. ‘Gender’ and ‘Age’ group on parenting styles, Youth problems and cognitive function among the Mizo adolescent as hypothesized by the present population.

CHAPTER – V
SUMMARY AND CONCLUSION

The aim of this study was to study of the effects of age, gender, ecology on Parenting, behavioural problems and cognition among Mizo Adolescents. The present study was designed to illustrate effects of 'Age', 'Ecology', and 'Gender' on the family problems, school and college problems, social problems, personal and over sensitivity problems and cognition of Mizo adolescent. Adolescence is a transitional period between childhood and adulthood, entered at approximately 10-12 years of age and ending at 18-22 years of age (Sanstrock, 2005). Adolescence (from Latin: adolescere meaning "to grow up") is a transitional stage which involves biological (i.e. pubertal), social, and psychological changes, though the biological or physiological ones are the easiest to measure objectively. The terms "youth ", "adolescent", "teenager", and "young person" are interchanged, often meaning the same thing, occasionally differentiated. The most significant characteristic of adolescence is rapid change. Adolescence is a time of painful struggle, with mixed messages and conflicting demands. Adolescence has been described as phase of life beginning in biology and ending in society (Petersen, 1988). Indeed, it may be defined as the period within the life span when most of person's biological, cognitive, psychological, and social characteristics are changing from what is typically considered child-like to what is considered adult-like (Lerner & Spanier, 1980).

Early adolescents is a time when conflicts with parents escalates beyond childhood levels (Collins and Steinberg, 2006; Riesch & others, 2003). This increase may be due to a number of factors: the biological changes of puberty, cognitive changes involving increased idealism and logical reasoning, social changes focused on independence and identity, maturational changes in parents, and expectations that are violated by parents and adolescents. The adolescent compare her parents to an ideal standard and then criticizes their flaws. Conflicts with parent increase with early adolescence. One estimate of the proportion of parents and adolescents who engage in prolonged, intense, repeated, unhealthy conflict is about one in five

families (Montemayor, 1982) and this prolonged, intense conflict is associated with a number of adolescents' problems-movement out of home, juvenile delinquency, school dropout, pregnancy and early marriage, membership in religious cults, and drug abuse (Brook & others, 1990). Families behaviours particularly parental monitoring and disciplining seem to influence association with delinquent peers through out the juvenile period (Cashwell and Vacc 1994. Gorman-Smith and Tolan (1998) discover that parental conflicts and parental aggressiveness predicted violent offending whereas lack of maternal affection and parental criminality predicted involvement in property crimes. In another study conducted by Gorman-Smith, data showed that children are more likely to resort to violence if there is violence within the relationships that they may share with their family (Gorman-Smith et al. 2001).

Developmental psychologists have been interested in how parents influence the development of children's social and instrumental competence since at least the 1920s. One of the most robust approaches to this area is the study of what has been called ***"parenting style.".*** The classic research of Diana Baumrind (1971) resulted in the identification of three major types of child rearing styles: Authoritarian, Authoritative and Permissive parenting styles under which comes neglectful and indulgent parenting. Using naturalistic observation, parental interviews and other research methods, she identified four important dimensions of parenting: (1) Disciplinary strategies, (2) Warmth and nurturance, (3) Communication styles, (4) Expectations of maturity and control. According to these dimensions, Baumrind (1968) has categorized parenting into three styles: *authoritative, authoritarian, and permissive*.

Maccoby and Martin (1983) make further distinctions, identifying four styles: 1) the *authoritative*-reciprocal parent who is demanding and controlling as well as being accepting, responsive and child centered; 2) the *authoritarian*-power assertive parent exercises considerable control over the child and is demanding as well as rejecting, unresponsive, and parent-centered; 3) *permissive-indulgent* parents are highly involved in children's lives, but allow them a great deal of freedom and do not control their negative behaviours; and 4) *permissive-indifferent parents* are uninvolved in their children's lives and interact with them as little as possible.

Problems of adolescent were summarized in four areas (Verma, 1971): (1) Family Problems, (2) School/College Problems, (3) Social Problems, and (4) Personal Problems and Over Sensitivity.

***Sample*:**

360 Mizo Adolescents based on 'Gender' (180 boys and 180 girls), 'Ecology' (180 urban and 180 rural), and ' age' group (180 samples for the two age groups 13 to 15 years named as lower age group and 17 -19 years named as upper age group) were selected by following the multi-stage-sampling procedure to served as participants for the present study. The two ecological comparision groups of subjects with differing ecological backgrounds were identified considering the primary objectives of the study on acculturation. This was done by taking lead from the previous findings of Zokaitluangi (1997) who identified low, moderate and high levels of regional development in Mizoram based on quantitative index, wherein the then Aizawl town emerged to be highly developed, followed by Lunglei district, and the least level of development in Serchhip district.

The first group of subjects referred to as 'Rural' residents is randomly drawn from villages of Serchhip district of Mizoram indicating the lowest level of development as compared to Aizawl, capital of Mizoram state of India; and the second group of subjects referred to as 'Urban' residents is randomly sampled from Aizawl (the capital of Mizoram) served as ***'Ecology'*** under main designed of the study. The boys and girls subjects formed the two representative groups under the independent variable of '***Gender***' in the main design of the study were selected from the mentioned Ecological settings – Serchhip and Aizawl District which were having different level of development. Finally, third main design of the ***'Age'*** group was selected among the Mizo adolescent students ranging in age from lower age group (13 to 15 years) and upper age group (17 to 19 years) served as subjects for the final conduct of the study. The respondents under each of the eight groups (2 ecology X 2 gender X 2 age groups) were randomly sampled following the multi-stage sampling procedure keeping in view of the objectives of the present study. The background information of the participants such as age, birth order, educational qualifications, employment status of the parents, the family structure (nuclear and joint), size of the family, space and other facilities available to each member of the family were

recorded, with the objective to obtain truly representative sample for the present study.

Finally, 360 Mizo youth ranging in age from 13 to 19 served as subject for the final conduct of the study. The responses of large number of the subjects were screened out based on (i) the subject outside 13 to 19 years of age (ii) uncertainty of the general status as prescribed, and (iii) incomplete questionnaires.

Design:

The study incorporates three-way classifications of variables of '***Ecology***' (rural and urban), '***Gender***' (boys and girls) and '***age'*** group (lower and upper). Under each cell of the eight-cells of the main design (2 ecology x 2 gender x 2 age groups) with equal proportion of youth, 25 in each cell were included for psychoactive evaluation of the behavioural measures for the present study.

The relationships (product-moment coefficients) between the scales/sub-scales of the behavioural measures were computerized for the eight-cells of the main design to form the basis for factor analysis. Factor analysis was aimed with the objective to elucidate the clusters of behavioural components accounting for parenting and intelligence in relation to youth problems.

The study also aimed to elucidate the cause and effect relationship, in addition to the correlation inferences, by incorporating three-way classification of variables of '***Ecology***' (rural and urban), '***Gender***' (boys and girls) and '***Age-group'*** on the on the behavioural variables of the scales/sub-scales of PI, YPI and RSPM (measures of the dependent variables) were analyzed. For simple and easier comparision, the ANOVA and Fisher's LSD test were employed when it required, and substantial data were retained for further analysis. A series of regression analyses were computerized to check the predictability of '***Ecology***' (rural and urban), '***Gender***' (boys and girls) and '***Age-group'*** (lower and upper age) on the behavioural measures. In the final count, the target research problem focused on "A Study of the Effects of Age, Gender, and Ecology on Parenting, Behavioural Problems and Cognition among Mizo Adolescents"**.**

The Psychological tests:

(1) Parenting inventory (PI: Steinberg, 1990; Steinberg et al., 1989 & 1991). The Parenting Inventory (Steinberg 1990; Steinberg et al., 1989 & 1991) is a 22-item scale with three factors of

(a) Parent Involvement (Pi) that is similar to Permissive style of parenting refers to nondirective, 'laissez-faire' type of childrearing, may be indulgent or negligent of their offspring (Maccoby and Martin, 1983).

(b) Psychology Autonomy Granting (Pag) which is similar to the Authoritative type of Parenting (Boumarind, 1991) specifying the that parental responsiveness (also referred to as parental warmth or supportiveness) the extent to which parents intentionally foster individually, self-regulation, and self-assertion by being attuned, supportive, and acquiescent to children's special needs and demands" covering the emotional responsiveness of parent (Baumrind, 1991).

(c) BC, (Behavioural Control) that is similar to Authoritarian type of Parenting. It is a parental demandingness refers to "the claims parents make on children to become integrated into the family whole, by their maturity demands, supervision, disciplinary efforts and willingness to comfort the child who disobeys" (Baumrind, 1991).

(2) **Youth Problem Inventory** (YPI: Verma, 1971). The test consists 75 items measuring different areas of Youth Problems viz.(1) Factor A: *Family Problems, (2) Factor B : School/College Problems, (3) Factor C: Social Problems and (4) Personal Problems over Sensitivity.* Each item carries four response choices; partially true, entirely true, partially untrue and totally untrue Problems of youth may be summarized in four areas (Verma,1971).

(A) Family Problems (Factor –A) including parenting indifference, parent strict supervision and lack of freedom, criticism and lack of recognition by parents, demands by family, interference, parental dominance, maintenance of difference between sons and daughters, rejection from parents, fear of parents, projection by

parents, lack of affiliation, over-dependence on parents, inter-generation gap in ideology and sibling relations.

(B) *School/College Problems(Factor-B)* which includes fear of college activities, fear of teachers, rejection and indifference by teachers, incompetence of teachers, harsh, rude and sarcastic behaviour of teachers, isolation, difficulties in school/college subjects and other handicaps at school/college.

(C) *Social Problems* (Factor-C) which includes social inferiority and social isolation.

(D) *Personal Problems and Over Sensitivity* (Factor-D) including illogical fear, depressions, health and constitution, beauty consciousness, manners and habits, present and future career, personal handicaps, frustrations and, feelings of failure and inferiority.

The inventory was constructed for more efficient group methods to identify problems of youth and thus it is economical, and the purposes are: to discriminate youth based on problems they are facing, to identify exact problems, to screen student for counseling purposes or personal help, to make young people to know their problems, to enable parent and teacher to understand their children, to indicate differences in problems of youth and pupil of other age groups, to indicate associated problems and to know adjustment strategist of youth with their anxiety.

3**)** **Raven's Standard Progressive Matrices** (RSPM: Raven et.al.1992). The test consists of 5 sets having 12 problems each. It is made up of five sets, or series, of diagrammatic puzzle has a part of missing, which the person taking the test has to find among the options provided. The scale consists of 60 problems divided into five Sets (A,B, C,. D , and E), each made up of 12 problems and assessment of a person's capacity for intellectual activity. It was designed to cover the widest possible range of mental ability and to be equally useful with persons of all ages, whatever their education, nationality, or physical condition, and internationally accepted.

The SPM consists of 60 items arranged in five sets (A, B, C, D, & E) of 12 items each. Each item contains a figure with a missing piece. Below the figure are either six (sets A & B) or eight (sets C through E) alternative pieces to complete the figure, only one of which is correct. Each set involves a different principle or "theme" for obtaining the missing piece, and within a set the items are roughly arranged in increasing order of difficulty. The raw score is typically converted to a percentile rank by using the appropriated norms.

Procedure:

The subjects were tested by using - 1) Parenting inventory (PI: Steinberg, 1990; Steinberg et al., 1989 & 1991), 2) Youth Problem Inventory (YPI: Verma,1971), and 3) Raven's Standard Progressive Matrices (RSPM: Raven et.al.1992).

The subjects were tested in classroom settings in the presence of the researcher, The Parenting inventory and the Youth Problem Inventory were administered in group condition and conducted in the classroom whereas the RSPM was administered individually where external disturbances were under controlled. The researcher describes the purpose of the study with the needful instructions carefully, and distributes the questionnaires, then gives test of trail with due care instructions that the subjects have to complete the whole questions. The actual administration of the test followed, all the incomplete questionnaire were checked out at the spot and request the same subject to complete if incomplete answer sheet was found. The researcher himself conducted the test administration and travels to various rural areas to collect the data of the rural youths (adolescents).

***Statistical analyses**:*

Subject –wise scores on the specific items of the behavioural measures of

(1) The Parenting Inventory (Steinberg 1990; Steinberg et al., 1989 & 1991) is a 22-item scale with three factors of Parental involvement (Pi), Psychological Autonomy Granting (Pag) and Behavioural Control (BC).

(2) Youth *Problem Inventory* (PI: Verma, 1971) The test consists different areas of Youth Problems viz. (A) *Family Problems, (B) School/College Problems, (C) Social Problems and (D) Personal Problems over Sensitivity*.

(3) *Standard Progressive Matrices* (RSPM: Raven et.al.1992) consisting 5 sets having 12 problems each to measures *intellectual level* of the subject were separately prepared over the levels of analyses (for male and female, urban and rural, lower age and upper age group of adolescent, and for the whole sample).

The preliminary psychometric analyses included (i) item-total coefficient of correlation (the relationship between the specific items with the sub-scales total as an index of internal consistency, (ii) reliability coefficient of correlation (Cronbach-alpha and split-half reliability) of the scales/sub-scales of the behavioural measures, (iii) inter-scale relationships, and (iv) predictive validity of the test scales (scales/sub-scales measures) by highlighting **'**Gender**'** (male and female), **'**Ecology**'** (rural and urban), **'**Age**'** groups (lower and upper age group) differences. By following the broad format of the preliminary psychometric analyses, the outcomes of results over the levels of analyses (for male, female, rural, urban, lower age, upper age group for the whole sample) are sequentially presented.

The supporting responses of the required information were also dissect on age, number of siblings, family size, nature of family and educational qualification for measurement purposes in the project population of the Mizo under study were separately prepared for male, females, and whole samples.

Psychometric Properties of the Behavioural Measures

The preliminary psychometric analyses over the level of analyses for each of the specific items and scales/subscales are determined with the objectives to ensure further statistical analyses, and the results are presented sequentially.

The response matrix on measures of (a) *The Parenting Inventory (PI: Steinberg 1990; Steinberg et al., 1989 & 1991)*, (b) *Youth Problem Inventory (YPI: Verma, 1971*) and (c) *Standard Progressive Matrices (Raven et.al.1992)* were

prepared and the psychometric adequacy for each behavioural measures were ascertained. The analysis of psychometric adequacy of the behavioural measures included: (i) item-total coefficient of correlation (and the relationship between specific items of sub-scale of each measure as an index of internal consistency), (ii) reliability coefficient (Cronbach alpha and split half reliability), and (iii) predictive validity by highlighting **'Gender'** (male versus female), **'Ecology'** (rural versus urban), **'Age'** group (lower and upper age) differences on each of the scale/sub-scale of behavioural measures. The reliability and validity analyses were computerized for males, female, and the whole sample in an effort to find consistency in results. Following the broad format of psychometric analyses, the results are presented under:

(1) The Parenting Inventory (Steinberg 1990; Steinberg et al., 1989 & 1991):

The item-total coefficients of correlation of Pi sub-scales (Pi, Pag and BC) of PI, together with the reliability indices (Cronbach-alpha and split-half reliability) of Mizo adolescent (for males, for females, and for the whole samples) are put together in Table – 10.

Item-total coefficient of correlation and reliability indices emerged to be robust at each level of analysis (for males, for females and for the whole sample). The results revealed that the Cronbach's Alpha for the internal reliability of ranged from 0.65 to 0.83, and the Split-half reliability ranged from 0.70 and 0.91 for the three sub-scale of the PI. Results (Table – 10**)** that item-total coefficient of correlation of the students (N=360) emerged to be robust over each levels of analysis before screening. All the sub-scales of the PI (Pi, Pag and BC) achieved satisfactory alpha coefficients (in excess of 0.60), the level recommended for statistical analysis and this confirmed the trustworthiness of the test scales for measurement purposes in the project population under study.

The mean and standard deviation, item-total coefficient of correlation of PI sub-scales (PI, Pag and BC) together with the reliability indices (Cronbach-alpha and split-half reliability) of the sample for males, females, and whole samples are put together in Table-.11.

Item-total coefficient of correlation and reliability indices emerged to be robust at each level of analysis (for males, for females and for the whole sample). Cronbach's Alpha for the internal reliability of the PI ranged from 0.50 to 0.72. The split-half reliability ranged from 0.52 and 0.69. All the reliabilities were higher than .50 and this confirmed the trustworthiness of the test scales for measurement purposes in the project population. Here it was observed that the item-total coefficients of correlation and reliability indices were found to be robust at each level of analyses (for males, for females, and for the whole sample). The range of item total coefficient correlation was all acceptable level in all comparison groups (> .10).

Relationship of the sub-scales of the PI.

After ascertaining that the data generally met the requirements of the Pearson's Product-Moment correlation, Intercorrelation was worked out between the subscales of PI. The relationships between the sub-scales of the behavioural measures for males, for females and for the whole sample (males and females) are presented in Tables-12.

The correlation between the inter-subscale of Parenting Inventory as measured by Pearson's Correlation Test indicates that there was correlation between the sub-scales. As shown in the Table -12, the sub scale BC (Behavioural Control i.e. Authoritarian type of Parenting) correlated with each other and with the total scores; the lowest score is 0.65 whereas the highest score reached 0.73 and all of them were higher than 0.10. The sub-scale Pag, (Psychological Autonomy Granting i.e. Authoritative type of Parenting) also correlated with each other showing the lowest score 0.37 and the highest score 0.53.The sub scale Pi, (Parental involvement i.e. Permissive type of Parenting) also show its correlation between them by scoring the range between 0.25 and 0.62. The result revealed substantial item total coefficient of correlation (relationship between the items of the specific scales) for the three sub- scales of the PI for the whole samples. The item total coefficient correlations have shown negative low relationship one and other explaining the contribution of the sub-scales for measurement purpose.

The psychometric analysis confirmed the applicability and trustworthiness of the scale for measurement purpose of the behavioural variable in the projected population under study, and that substantiate to the finding of the Steinberg (1991).

(2) Youth Problem Inventory (Verma, 1971):

The item-total coefficients of correlation of Factor A of YPI sub-scales, together with the reliability indices (Cronbach-alpha and split-half reliability) of Mizo adolescent (for males, for females, and for the whole samples) are put together in Table – 13.

The item-total coefficient of correlation of YPI sub-scales (Factor A, B, C, and D) were put together with the reliability indices (Cronbach-alpha and split-half reliability) of the sample (for males, for females, and for males and females) are put together in Table- 13 - 16) .

Item-total coefficient of correlation and reliability indices emerged to be robust at each level of analysis (for males, for females and for the whole sample). Cronbach's Alpha for the internal reliability of the YPI ranged from 0.79 to 0.86. The split-half reliability ranged from 0.67 and 0.93. Findings are higher than .60; this demonstrated the trustworthiness of the YPI sub-scales for measurement purposes in the project population. The outcomes of analysis suggest the trustworthiness of the YPI scales for measurement purposes in the project population- Mizo adolescents.

The item-total coefficient of correlation of YPI sub-scales (Factor A, B, C, and D) were together with the reliability indices (Cronbach-alpha and split-half reliability) of the sample (for males, for females, and for males and females) are put together in Table- 17.

Item-total coefficient of correlation and reliability indices emerged to be robust at each level of analysis (for males, for females and for the whole sample). Cronbach's Alpha for the internal reliability of the YPI ranged from 0.65 to 0.83. The split-half reliability ranged from 0.67 and 0.93. Findings are higher than .60;

this demonstrated the dependability of the YPI's sub-scales for measurement purposes in the project population. All the coefficients were significantly positive correlated (.01 level) that showing the trustworthiness of the test scale for the measurement purposes among the target population of Mizo.

Relationships of the subscale of YPI:

After ascertaining that the data generally met the requirements of the Pearson's Product-Moment correlation, intercorrelations were worked out between all the subscales of YPI. The relationships between the scales/sub-scales of the behavioural measures for males, for females and for the whole sample (males and females) are presented in Tables – 18.

The correlation between the inter-subscale of Youth Problem Inventory Test also indicates that there was correlation between the sub-scales as shown in the Table - 18, every item in the sub scale Factor –A: *Family Problem* correlated each other and with the total scores; the scores in this sub scale lying between 0.23 and 0.55, every items in the sub scale Factor-B: *School/College Problems* are also correlated each other showing the scores in between 0.35 and 0.55. Every items in the sub scale Factor-C: *Social Problems* are also correlated each other recording the scores between 0.11 and 1.00, items in sub-scale Factor-D: *Problem regarding Personality and over Sensitivity* are also correlated each other by scoring the range between 0.32 and 0.61.The results revealed that the significant positive item total coefficient correlation among the sub-scales of the YPI and highlighted their contribution to the scale for measurement purposes.

The overall psychometric analysis confirmed the adequacy of the scale for measurement purpose for the target population under study, and supporting the finding of Verma (1971) on the trustworthiness of YPI for measurement purposes, and also suggested replicability among the Mizo adolescent.

(3) Standard Progressive Matrices (Raven et.al.1992):

The Mean, SD, item-total coefficient of correlation on the sub-scales of the RSPM (factors-: A, B, C and D) were put together with the reliability indices (split-

half reliability) for male, female and for the whole samples in Table -19. The split-half reliability ranged from 0.41 and 0.86. Findings are higher than .50. Item-total coefficient of correlation and reliability indices almost emerged to be robust at each level of analysis except on factor- A for female samples was a bit low (than 0.50), but acceptable level for measurement purposes in the project population under study.

Relationships of the sub-scales of RSPM Behavioural Measures

After ascertaining that the data generally met the requirements of the Pearson's Product-Moment correlation, intercorrelations were worked out between all the subscales of RSPM. The relationships between the scales/sub-scales of the behavioural measures for males, females and for the whole sample (males + females) are presented in Tables- 20. The correlation between the inter-subscale of RSPM also indicates that there is positive significant correlation between the sub-scales that confirm the test scale acceptability for the measurement purpose for the present study.

In the Table – 20, shows that all the sub scale/factors in RSPM are correlated each other. Scores at factor - A shows that the scores were lying in between 0.37 and 0.69; also 0.33 and 0.70 in factor- B; 0.42 and 0.74 in factor -C; 0, 17 and 0.72 in factor -D and lying between 0.24 and 0.70 in factor- E. The total score in factor A, B, C, D and E are also correlated each other showing the score ranging between 0.56 and 0.75 highlighting the validity of each factors of YPI for it purport to measure.

The overall investigation relating to the confirmation of the adequacy of the RSPM revealed that the scale was trustworthy for the measurement purpose of the behavioural variables in the projected population under study as the Item total Coefficients correlation for male, female and whole samples were more or less same with the finding of Ravens (Raven et.al.1992).

Predictability of Age, Gender, and Ecology on the sub-scale of the PI among Mizo Adolescents.

The ANOVA was computed to highlight the predictions of independent variables of their independent and interaction effect on the Parental Involvement, Psychological Autonomy Granting and Behavioural Control of the subscale of Parenting Inventory(PI).

(1) Prediction of 'Gender' on Pi sub scale of PI:

(a) Prediction of 'Gender' on parental involvement (Pi): The Fisher's LSD shows the significant independent effect of 'gender' was found on (Pi), (M= 84.30 and F- ratio= 5.35; $p < .05$). Differences between mothers' and fathers' parenting were reported in adolescents' perceptions of their mothers and fathers and in the influences of mothers' and fathers' parenting practices on adolescent outcomes that adolescents tend to link more emotional attributes to mothers and more rigid and formal attributes to fathers; (Pipp, Shaver, Jennings, Lamborn, and Fischer, 1985). The present study was in agreement with the earlier studies showing the gender difference on parental involvement.

(b) Prediction of 'Gender' on Behavioural Control: The independent significant gender effect was found on Behavioural Control (BC), (M= 211.24, F. Ratio = 51.57; $p < .01$), and the finding got supporting evidence that mothers reported themselves to be higher on firm control, acceptance, and closeness than fathers (Forehand & Nousiainen, 1993) and mothers rated fathers as less accepting of their children than they rated themselves (Schwarz, Barton-Henry, & Pruzinsky, 1985).

(2) Prediction of 'Ecology' on Pi subscale of PI:

*The significant independent effect of 'ecology' was found on Pi (*M= 214.90, F-ratio= 13.6; $p < .01$), conforming to the available literature that lower socioeconomic status and single parenthood have been linked to higher levels of behavioural problems in children (Hetherington & Clingempeel, 1992; Huston,

McLoyd, & Garía Coll, 1994) and more negative parenting (Conger et al., 1992; Hoff-Ginsberg & Tardif, 1995; Jenkins, Rasbash, & O'Connor, 2003) and other study also revealed that socioeconomic status can either directly or indirectly affect the quality of family relationships and, more specifically, parent–child relationships (e.g., Conger et al., 1994; McLoyd, Jayaratne, Ceballo, & Borquez, 1994) as the same case happened in Mizoram rural and urban areas.

(3) Prediction of 'age group' on Pi of the subscale of PI:

(a) The significant independent effect of 'Age' group was found in Parental Involvement (Pi), (M= 107.90, F-Ratio= 6.84; $p < .01$) of the sub-scale of PI. Considering the major transformations in parent-child relationships during adolescence (Hill, 1980, 1983; and Collins, 1990) consequently parenting styles and their influences on adolescent outcomes change from early to late adolescence. Several studies also have shown that parenting differs by the age of the adolescent (Dix, Ruble, Grusec, & Nixon, 1986; Epstein, 1987; Feldman & Gehring, 1988; Johnson et al., 1991; Lucas & Lusthaus, 1978; Pipp et al., 1985; Paikoff & Brooks-Gunn, 1991; Smollar & Youniss, 1989)., the same trend was found in the present study.

(b) The significant independent effect of 'Age' group on Psychological Autonomy Granting (PAG), (M= 232.00, F-ratio=232.00; $p < .01$) in confirmation to the finding of Barber (2002) that higher levels of psychological control reported by males than females, by younger than older children, among lower than upper socioeconomic status families, and by ethnic minority than European American families. In other study it was reported that early adolescence is often a time of increased emotional and physical distancing from parents (Paikoff & Brooks-Gunn, 1991; Steinberg, 2001), as well as a time during which the frequency and affective intensity of parent–child conflicts may be higher than at other ages (Laursen, Coy, & Collins, 1998).

(c) The significant independent effect of 'Age' group on Behavioural Control (BC) was demonstrated (M=16.62, F-ratio= 4.06; $p < .05$) that have same inclination

with the finding of Collins (1990) that parenting styles and their influences on adolescent outcomes may change from early to late adolescence.

(4) Prediction of 'ecology x age group' on Pag of the subscale of PI:

The 'ecology x age group' interaction effect was found on Psychological Autonomy Granting (PAG), (M= 88.50, F-ratio=5.74; $p < .05$) subscale of PI. The finding had receives supporting evidence that cultures vary in degree of industrialization, extent of individualism versus collectivism, religion, and exposure to political violence; consequently the psychological control relating to internalizing and externalizing problems variation in a variety of cultures, much as has been found in the United States that leads to higher levels of psychological control reported by males than females, by younger than older children, among lower than upper socioeconomic status families, and by ethnic minority than European American families(Barber, 2002).

(5) Prediction of* 'gender x ecology x age group' *on Behavioural Control of the subscale of PI:

The three interaction effect of 'Gender x Ecology x Age group' effect was depicted on Behavioural Control (M=16.26, F-ratio= 3.97; $p < .05$) subscale of PI. Researches demonstrated that different cultural groups vary on family demography (e.g., mother-led families are more common in African American and Native American cultures; McCreary & Dancy, 2004), lower socioeconomic status have been linked to higher levels of behavioural problems in children (Hetherington & Clingempeel, 1992; Huston, McLoyd, & Garía Coll, 1994) and more negative parenting (Conger et al., 1992; Hoff-Ginsberg & Tardif, 1995; Jenkins, Rasbash, & O'Connor, 2003) and higher levels of psychological control reported by males than females, by younger than older children, among lower than upper socioeconomic status families, and by ethnic minority than European American families(Barber, 2002), and also demandingness appears to be less critical to girls' than to boys' well-being (Weiss & Schwarz, 1996)

The Fisher's LSD results for the subscale of PI:

The ANOVA (Table - 22) has shown the significant independent effect of 'Gender', ' Ecology' and 'Age group'; and significant interaction effect of 'Ecology X Age Group' and three interaction effect of 'Gender X Ecology X Age Group', that were analyzed with Fisher's LSD means comparison and presented in the preceding.

(i) The Fisher's LSD for significant independent effect of 'Gender' on PI:

(a). The Fisher's LSD for significant independent effect of 'Gender' on Pi of the subscale of PI: The significant independent effect of 'Gender' for the 2x2x2 (2 Gender x 2 Ecology x 2 Age Group) Factorial design on Parenting Involvement (Pi) as provided by The Fisher's LSD manifested greater mean score for Female (M = 29.72) as compared to Male (M = 28.76).The significant mean differences (M1-M2 = 0.956; $p < .05$) is depicted in Figure – 7.

(b) The Fisher's LSD for significant independent effect of ''Gender' on Behavioural Control of the subscale of PI: The independent effect of 'Gender' for the 2 X 2 x 2 (2 Gender x 2 Ecology x 2 Age Group) Factorial design on Behavioural Control (BC) is also subjected to Fisher's LSD.

The Fisher's LSD show that greater mean score for Female (M = 12.04) as compared to Male (M = 10.51). The significant mean differences (M1-M2 = 1.533; $p < .01$) is depicted in Figure – 8..

***(ii) The Fisher's LSD for significant independent effect of ''Ecology' on Pi of the subscale of PI**:*

The Fisher's LSD for Ecology in PI manifested greater mean score for Urban (M= 30.01) as compared to Rural (M= 28.47).The significant mean differences (M1-M2 = 1.534,$P < .01$) is depicted in Figure - 9.

***(iii) The Fisher's LSD for significant independent effect of ''Age group' on PI**:*

(a) The Fisher's LSD for significant independent effect of ''Age group' on Pi of the subscale of PI of the subscale of PI: The Fisher's LSD for 'Age Group on PI' manifested greater mean score for Upper Age Group (M =29.25) as compared to Lower Age Group (M=28.71).The significant mean diff (M1-M2 = 1.035; $p < .05$) is depicted in Figure – 10.

(b) The Fisher's LSD for significant independent effect of 'Age' Group on Behavioural Control of the subscale of the PI: Result revealed that shows that greater mean score for Upper Age Group (M = 11.46) than Lower Age Group (M = 11.07).The significant mean diff (M1-M2 = 0.388; $p > .05$) is depicted in Figure -11.

(c) The Fisher's LSD for significant independent effect of 'Age' on Pag of the subscale of PI: The Fisher's LSD was employed to portrait the significant independent effect of the three independent variables on Psychological Autonomy Granting' of the subscale of PI. The significant independent effect of 'Age Group' for the 2 x 2 x 2 (2 Gender x 2 Ecology x 2 Age Group) Factorial design on Psychological Autonomy Granting' by the Fisher's LSD shows greater mean score for Upper Age (M = 19.32) as compared to Lower Age Group (M = 17.72). The significant mean difference (M1-M2 = 0.1599; $p < .01$) is depicted in Figure.- 12.

***(4) The Fisher's LSD for significant interaction effect of 'Ecology x Age group' on Pag of the subscale of PI:* As shown in Table -23.**

The Fisher's LSD for significant independent effect of Ecology-Age Group for the 2 x 2 x 2 (2 Gender x2 Ecology x 2 Age Group) Factorial design on PAG manifested greater mean score for Rural Upper Age (M = 18.82) as compared to Urban-Lower Age Group(M = 17.19) . The significant mean diff. (M1-M2 = 1.683; $p < .01$).is depicted in Figure -13.

The mean score by Urban-Upper Age Group (M4 = 19.89) is also higher than the mean score by Urban-Lower Age Group (M1 = 17.19). The significant mean diff. is (M1-M2) = 2.600; $p < .01$).The mean score by Urban Upper Age Group (M4=19.79) is also higher than the mean score of Rural Lower Age

(M2=18.27).The significant Mean diff.(M1-M2 = 1.510; p < .05) which are depicted in Figure -13.

(5) The Fisher's LSD for significant independent effect of ''Ecology x Gender x Age' significant interaction effect on Behavioural Control of the subscale of PI.

As shown in the Table -23, The significant independent effect of 'Gender, Ecology and Age Group' for the 2 x 2 x 2 (2 Gender x 2 Ecology x Age Group) Factorial design on Behavioural Control was calculated by using Means comparision and presented in ascending order in Table – 23, and the manifested results as follows:

(1) Male Urban Lower age group (M1= 10.13) was lower than Male Urban Upper age (M4= 11,24) at significant level (M1-M4 = 1.111;p <.01.), female Rural Lower age (M5=11.76) at significant level (M1-M5 = 1.623;p < .01), Female Urban Lower age (M6= 12.02) at significant level (M1-M6 = 1.889;p < .01), Female Urban Upper age (M7=12.02) at significant level (M1-M7 =1.899; p < .01) and Female Rural Upper age (M8= 12 .36) at significant level (M1-M8 = 2.223: p < .01).

(2) Male Rural Lower age group (M2= 10.32) was lower than Male Urban Upper age (M4= 11,24) at significant level (M2-M4 = 0.927;p <.01.), female Rural Lower age (M5=11.76) at significant level (M2 -M5 = 1.439;p < .01), Female Urban Lower age (M6= 12.02) at significant level (M2-M6 = 1.705;p < .01), Female Urban Upper age (M7=12.02) at significant level (M2-M7 =1.705; p < .01) and Female Rural Upper age (M8= 12 .36) at significant level (M2-M8 = 2.039: p < .01).

(3) Male Rural Upper age group (M3= 10.33) was lower than Male Urban Upper age (M4= 11,24) at significant level (M3-M4 = 0.917;p <.05.), female Rural Lower age (M5=11.76) at significant level (M3 -M5 = 1.429;p < .01), Female Urban Lower age (M6= 12.02) at significant level (M3-M6 = 1.695;p < .01), Female Urban Upper age (M7=12.02) at significant level (M3-M7 =1.695; p < .01)

and Female Rural Upper age (M8= 12 .36) at significant level (M3-M8 = 2.029: p < .01).

(4) Male Urban Upper age (M4= 11.24) was lower than Female Rural Upper age (M8= 12 .36) at significant level (M4-M8 = 1.112: p < .01).

The results of the Fisher's LSD confirmed the outcomes of the ANOVA by displaying the significant independent effects of the independent variables of "Ecology', 'Gender' and 'Age' in every comparision on the behavioural control of the sub scale of Parenting. The above results were displayed in Figure -14 in the preceding.

2. Youth Problem Inventory

The mean and SD values of the subscale of the YPI for the three independent variables "Ecology', 'Gender' and 'Age' for the whole samples were presented in Table – 24.

Prediction of the sub-scale of the YPI from the 'Ecology', 'Gender', and 'Age' for the whole samples.

To highlight the prediction of independent and interaction effect of the 'Ecology', 'Gender', and 'Age' group on the scale and subscales of the YPI, the ANOVA was computed, and the outcomes were discussed sequentially in preceding:

As shown in Table – 25, for the 2x2x2 (2 Gender x 2 Ecology x 2 Age Group) Factorial design, The Fisher's LSD for 'Gender' on Youth Problem Inventory (YPI) shows significant independent effect on Problem-D: *Personal Problem and Over sensitivity* (M=835.20, and F. ratio= 15.71; p < .01) whereas Gender has no significant independent effect on Problem-A: *Family Problem*; Problem-B: *School /Colleges Problem* and Problem-C: *Social Problem*.

(1) Prediction of 'Gender' on the Problem-D: Personal Problem and Over sensitivity of the YPI:

*The results revealed that t*he ANOVA shows that significant independent affect of 'Gender' on Problem-D: *Personal Problem and Over sensitivity* (M=835.20, and F. ratio= 15.71; p < .01), that find relevant evidence that parental aggression is associated with elevations in interpersonal problems for male and female adults (Blumenthal, Neemann, & Murphy, 1998), and are associated with both physical and psychological aggression for males (Murphy & Hover, 1999; Murphy, Taft, & Echardt, 2007) and also reported in the earlier study that Personality features also distinguish personal violent from non- personal violent men, with personal violent men showing more personality disorder features than non- personal violent men (Hamberger et al., 1996; Lawson, Weber, Beckner, Robinson, Marsh, & Cool, 2003).

(2) Prediction of 'Age' on subscales of YPI:

(a) Prediction of 'Age ' on the Problem-A: Family Problems subscale of the YPI : The significant independent effect of 'Age' was found on Problem-A (M=1683=60, and F. ratio= 31.09; p < .01) that had confirmatory research as some developmentalists believed that the sense of uniqueness, invincibility, and egocentrism generates wreckless behaviour of adolescents including drag racing, drug use, suicide **(**Dolcini & others, 1989**).** Hagan and Foster (2001) indicated that various exposures to violence are important sources of early adolescent role exits, which means that not only a juvenile can witness violence within the family but on the outside as well.

(b) Prediction of 'Age ' on the Problem-B: School/College Problems subscale of the YPI : The significant independent effect of 'Age' was found on Problem -B of the subscales of YPI (M=160.11,and F. ratio=3.90; p < .05), the finding validated that parental warmth and acceptance have been found to be associated with better academic achievement, higher levels of reported self-reliance, and fewer problem behaviours in African American families in both high and low-risk communities (Gonzales, Cauce, Friedman, and Mason, 1996; Steinberg,

Mounts, Lamborn, and Dornbusch, 1991; Taylor and Roberts, 1995). Other study reported that youth who are at high risk for problems, such as academic difficulties, substance abuse and early sexual behaviour, each of which may have serious long term consequences (Dryfoos, 1990; Hawkins, 1995; Howell, 1995).

(3) Prediction of 'Gender x Ecology' on the subscale of YPI:

(a) *Prediction of* 'Gender x Ecology' *on the Problem-* A: Family Problems was found (M=403.80, and F. ratio=7.46; $p < .01$). Youniss and Smollar (1985) found that adolescents' perceived their fathers to be authority figures who provided advice on practical matters and guidelines for behaviour, whereas they perceived their mothers to be a combination of authority and equality, intimacy, and conflict, and parenting differs by the age of the adolescent (Dix, Ruble, Grusec, & Nixon, 1986; Paikoff & Brooks-Gunn, 1991; Smollar & Youniss, 1989). Barber (2002) found higher levels of psychological control reported by males than females, by younger than older children, among lower than upper socioeconomic status families, and by ethnic minority than European American families.

(b) *Prediction of '*Gender x Ecology*' on the Problem-B: School/College Problems subscale of the YPI* (M=203.74, and F. ratio=4.97; $p < .05$) got validation of the earlier studies that African American adolescent girls and their mothers reported conflicting expectations for autonomy and closeness that stem from the hope that daughters will grow up self-reliant yet retain the expected loyalty and attachment to family and community (Cauce et al., 1996). It was also reported that both lower socioeconomic status and single parenthood have been linked to higher levels of behavioural problems in children (Hetherington & Clingempeel, 1992; Huston, McLoyd, & Garía Coll, 1994) and more negative parenting (Conger et al., 1992; Hoff-Ginsberg & Tardif, 1995; Jenkins, Rasbash, & O'Connor, 2003). Other study also reported that socioeconomic status, family structure, and maternal age can either directly or indirectly affect the quality of family relationships and, more specifically, parent–child relationships (e.g., Conger et al., 1994; McLoyd, Jayaratne, Ceballo, & Borquez, 1994).

(4) Prediction of 'Ecology x Age Group' on Problem –A and problem –D of the subscale of YPI:

(a) *The significant independent effect of 'Ecology x Age Group' was found on Problem –A: Family Problems* (M=1195.50, and F. ratio=22.07; $p < .01$) got the supporting evidences that higher levels of psychological control reported by males than females, by younger than older children, among lower than upper socioeconomic status families, and by ethnic minority than European American families (Barber, 2002).

(b) *The significant independent effect of 'Ecology x Age Group' was found on Problem-D: Personal Problem and Over sensitivity* (M=315.80 and F. ratio= 5.94; $p < .05$) that children who inherit predispositions toward criminal behaviour (Cloninger et al., 1982; Mednick et al., 1987), schizophrenia (Tienari et al., 1994), or alcoholism (Cloninger et al., 1982; McGue, 1999) are more likely to fall prey to these risks if they are reared in adverse circumstances, shared environmental influence has been found to contribute substantially to adolescent delinquency (Rowe, 1997) and higher levels of psychological control reported by younger than older children, among lower than upper socioeconomic status families, and by ethnic minority than European American families (Barber, 2002).

The Fisher's LSD shows greater mean score for Lower Age Group (M=20.87) as compared to Upper Age Group (M= 16.63).The significant mean differences (M1-M2 = 4.244; $p < .01$.) is depicted in Figure – 15.

(1) Prediction of Fisher's LSD for 'Gender x Ecology' on Problem -A : Family problems of YPI.

Table- 26, shows that the Fisher's LSD manifested greater mean score for; (1) Male-Rural (M4=20.62) as compared to Male-Urban (M1=17.61)at significant M4-M1= 3.011; $p < .01$.(2) Male-Rural (M=20.62) was also greater than the mean score of Female-Rural (M3=17.69) at significant (M4-M2 = 2.933; $p < .01$) which are depicted in Figure – 15.

The finding received assenting evidences that the African American families extremely high value is placed on respecting, obeying, and learning from elders in

the kinship network and community (Willis, 1992), parents indicated that they viewed conflicts with children in terms of respect for parents, obedience to authority, and the importance of cultural traditions (Smetana & Gaines, 1999; Smetana, Crean, & Daddis, 2002) , and that strongly suggests that the operative of environmental influences (Harris, 1998) as shared environmental influence has been found to contribute substantially to adolescent delinquency (Rowe, 1997).

(2) Prediction of Fisher's LSD for 'Ecology x Age' on Problem-A: Family Problems:

The fisher's LSD was computed to discern the independent effect of 'Ecology x Age' on problems -A : Family problems of YPI as shown in Table - 27.Table - 27 shows that the mean score of:

(1) Urban-Upper Age Group (M1=14.26) was lower than Rural Upper age (,M2= 18.89) at significant level (M1-M2= 4.64; p< .01 level, Rral lower (M3= 19.44) at significant level (M1-M3= 5.19; p< .01' Upper lower age (M4= 22.23) at significant (M1-M4= 7.98; p < .01 level).

(2) Rural-Upper Age Group (M2=18.89) lower than Upper lower age (M4=22.23) at significant level (M2-M4= 3.34; p<.01).

(3) Rural-Lower Age Group (M3=19.44) was lower than Urban Lower age (M4=22.24) at significant level (M3-M4= 2.79; p < . 05 level. which are depicted in Figure -17.

For the significant independent effect and interaction effect for the 2 x 2 x 2 (2 Gender x 2 Ecology x 2 Age group) Factorial design on Problem-B (School and Colleges Problem) in the Youth Problem Inventory Scale were computed, and the highlighted results were presented sequentially.

(3) Prediction of Fisher's LSD for 'Age' group on factor –B: School and College Problems:

The Fisher's LSD show greater mean score for Lower Age Group (M=13.34) than mean score of Upper Age Group (M=12.07).The significant mean differences (M1-M2 = 1.264; $p > .05$.) is depicted in Figure -18.

(4) Prediction of Fisher's LSD for 'Ecology and Gender' on factor – B: School and College Problems:

For 'Gender x Ecology' as shown in Table – 28. The Fisher's LSD shows greater mean score for Male-Rural (M4= 14.23) than mean score of Male-urban (M1= 11.64 significant level (M4-M1= 2.59 ; $p < .01$), and also greater than Female rural samples (M2= 12.26) at significant level (M4-M2 = 1.98; $p < .01$ level, which are diagrammatically represented in Figure -19.

(5) Prediction of Fisher's LSD for 'Gender' on factor – D: Personal Problem Problems:

For the significant independent effect of' Gender' for the 2 x 2 x 2 (2 Gender x 2 Ecology x 2 Age Group) Factorial design on Problem-D-Personal Problem in Youth Problem Inventory Scale, the Fisher's LSD manifested greater mean score for Female (M=21.51) than Male (M=18.46).The significant mean differences (M1-M2 = 3.050 ; $p < .01$) is depicted in Figure -20.

(6) Prediction of Fisher's LSD for 'Ecology and Age' on Factor –D: *Personal Problem and Over sensitivity* of the sub-scale of the Youth Problem Inventory Scale:

As shown in Table -29, for 'Ecology x Age Group,' the Fisher's LSD shows greater mean score for Urban-lower Age Group (M=21.43) than Urban-Upper Age Group (M=18.66).The significant mean differences (M1-M2 = 2.777; $.01 < p < .05$) is shown in Figure- 21.

4. Raven's Standard Progressive Matrices :

To discern the independent and conjoint significant effect of the 'Ecology', 'Gender', and 'Age' group on subscale of RSPM was computed, and the outcomes were discussed sequentially and presented in proceeding.

Predictability of 'Age', 'Gender', and 'Ecology' on the test scores of the RSPM among Mizo Adolescents.

The Value of Mean, SD for the cognitive function of the Mizo adolescent for the comparision groups were presented in Table – 30.

The ANOVA for prediction of independent and interaction effect of 'Age', 'Gender', and 'Ecology' on RSPM was computed and the outcomes were presented in the Table – 31 and also discussed sequentially in the preceding:
The ANOVA of RSPM revealed that:

(1) *The significant independent effect of 'Ecology'* (F-ratio = 27.57 at .01 level). The finding received confirmatory evidences that the ecological setting such as urban and rural were having different level of advantages that may specify the educational advantages and disadvantage leading to different level of Intelligence. The relationship between poverty and poorer child cognitive and/or language development among young children was first identified by American researchers in the late 1960s (Honzik, 1967; Werner, Simonian, Bierman & French, 1968) and has been repeatedly demonstrated in the United States since that time (Brooks-Gunn, Klebanov & Duncan, 1996. Studies have found significant correlation between socioeconomic status and intelligence (Seifer, 2001), and the intelligence of the children's in South Africa whose schooling was delayed for four years because teachers were not available (Ramphal, 1969). Other study reported that the way that parents communicate with children and the support parents provide in which children live and the quantity of schools may contribute for intelligence (Ceci & Gilstrap, 2000; Christian, Bachnan, & Morrison, 2001).

(2) *The independent 'Age' group effect* was also bring forward (F-ratio = 42.15 at .01 level) that the intelligence level and age group different was well accepted in every society among the normal development persons. Although, most

researchers agreed that heredity does not wholly determine intelligence (Gottlieb & Blair, 2004; Gottlieb, Washlsten, & Lickliter, 2006), and believed that modifications in environment can change their IQ scores considerably (Cambell & others, 2001). Hereditary influences on intelligences increase with age, as we grow older, our interactions with the environment are shaped less by the influence of others and the environment on us and more by our ability to choose our environment to allow the expression of genetics tendencies (Neisser & others, 1996).

(3) *The significant interaction effect of 'Gender x Age'* (F-ratio = 4.25 at .05 level) was evinced as the core of intelligence consists of complex cognitive processes, and a child's intellectual ability increases with age (Binet, 1904). Similarly, different age group has different value, attitudes, interest and demand according different problems also. Radloff (1991) also found that adolescents reported more symptoms of depression than the general population (M = 16.60) for junior high school students and M = 17.88 for high school students). Those problems may be affected by the maternal age, education, employment, and total family income affect maternal empathy, corporal punishment, parental distress, and the identification of the infant as a 'difficult child' (S.Cain, Wilson & Coms-Orme, 2005). Colom et al. in 2002 showed that the difference observed is in "ability in general", not in "general ability", and that the average sex-difference favoring males must be attributed to specific group factors and test specificity. Cahan and Cohen, found that older children in a grade tended to score slightly higher than their younger classmates but importantly they found that children who are in a higher grade but are virtually the same age as children in the grade lower have higher IQ scores. It is postulated this is due to the extra year of schooling.

The Fisher's LSD results for RSPM:

The Fisher's LSD for the significant independent effect of 'Ecology on RSPM shows greater mean score for Urban (M=41.46) as compared to the mean score of Rural (M=36.16).The significant mean differences (M1-M2 = 5.305; $p < .01$) is depicted in Figure – 31 received confirmatory evidence that children who grow up in low-income families are at a higher risk to be delayed in cognitive development than children who grow up in middle- or high-income families

(McWayne, 2004), also many studies support the idea that the malnutrition present in many low-income households contributes to a decrease in mental development (Ricciuti, 1993).

Prediction of Fishers LSD for 'Age' group on RSPM.

For Age Group on RSPM, the Fisher's LSD manifested greater mean score for Upper Age Group (M=42.09) than the mean score of Lower Age Group (M=35.38).The significant mean differences (M1-M2 = 6.706; $p < .01$ is depicted in Figure-32.

Prediction of Fishers LSD for 'Gender x Age Group' group on RSPM:

Table - 32: Fisher's LSD means comparison for the significant effect of 'Gender x Age Group' on Total of Factor ABCDE of the sub-scale of RSPM.

As shown in Table 32. The Fisher's LSD for the significant independent effect of 'Gender x Age Group on RSPM-total of all factors' shows greater mean score for (1) Female –Upper Age Group (M2=40.87), and (2) Male-Upper Age Group (M3=43.26) as compared to the mean score of Male-Lower Age Group (M1=34.52). Their significant mean differences with Male-Lower Age Group (M1-Mn…) are as follows: - (1) M1-M2 = 6.344; $p < .01$, and (2) M1-M3 = 8.732; $p < .01$ had confirmatory evidence that men and women have statistically significant differences in average scores on tests of particular abilities (Douglas, 2006) Studies also illustrate consistently greater variance in the performance of men compared to that of women (Deary, 2007). The psycho-physiological structure of the verbal and nonverbal intelligence of children differing from one another in academic progress has been studied at the initial (six to seven years of age) and the last (nine to ten years of age) stages of studying at primary school, and the age-related characteristics of the development and formation of a system of cognitive functions determining the efficiency of verbal and nonverbal activities in schoolchildren differing in academic progress have been determined (Bezrukkikh, 2006).

The mean scores of (1) Female –Upper Age Group (M2=40.87), and (2) Male-Upper Age Group (M3=43.26) are higher than the mean score of Female-Lower Age Group (36.20).Their significant mean differences with Female-Lower Age Group (M1-Mn…) are:- (1) M1-M2 = 4.667; $p < .01$, and (2) M1-M3 = 7.055; $p < .01$.

The results are depicted in Figure -31.

Prediction of the Youth Problems from Parenting Styles:

Multiple regression analyses among the levels of scales and subscales of the present study were computerized in order to determine the antecedents and consequences relationship among the behavioural measures of the theoretical construct as envisioned. The multiple regression analyses were computed and were jointly taken together as the predictor and the criterion for all of the scales (Parenting styles) to predict the predictor and the criterion measures. The R, R-square, Beta-values, significant F-change, Durbin Watson were presented together in Table - 31.

Observation of Table -33 revealed that Parental involvement (Pi) contributed 5.4 % of variance on Family Problem (Problem-A) which is supported by the ANOVA for the Progressive Model in the prediction of Problem-A, from Pi (SS = 1217.55, F = 20.49; $p < .01$). The inclusion of Psychological Autonomy Granting (PAG) in the former model revealed 13 % of changes in variances explained leading to 18 % variances explained in the prediction of Problem- A, from Pi and PAG which is also supported by the ANOVA for the model (SS = 4061.82, F = 39.35; $p < .01$). The final inclusion of Behavioural Control(BC) in the former model revealed only 0.1 % of changes in variances explained which is very small contribution and negligible for the change effecting no differences in the prediction of Problem A from Pi, PAG and BC which is also supported by the ANOVA for the model (SS = 4078.46 , F= 26.29; $p < .01$).

The relationships between parenting style and adolescent functioning have shown great heterogeneity and variability in developmental outcomes in high risk environments, though many young people manage to do well (McLoyd, Jayaratne, Ceballo, and Borquez, 1994; Taylor, 1997). Parental warmth and acceptance have

been found to be associated with better academic achievement, higher levels of reported self-reliance, and fewer problem behaviours in African American families in both high and low-risk communities (Gonzales, Cauce, Friedman, and Mason, 1996; Steinberg, Mounts, Lamborn, and Dornbusch, 1991; Taylor and Roberts, 1995). Children raised in authoritative homes, as compared to those reared in permissive or authoritarian homes, demonstrated higher levels of competence, achievement, social development, self-esteem, and mental health (Maccoby and Martin, 1983) while restrictive control, which may limit adolescents age-appropriate autonomy, has been found to be related to higher levels of problem behaviours (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994) and adolescent girls with Permissive mothers exhibited more minor delinquent behaviours than those with Authoritative mothers. The finding of this study was in congruent with the earlier studies in confirming the theoretical foundation as laid by Boumarind (1991) and with the vast literature in which researchers have concluded that adolescents experience heightened developmental outcomes when reared by authoritative parents (e.g., Dornbusch et al., 1987; Gerdes & Mallinckrodt, 1994; Steinberg et al., 1992).

In the same Table, Table -33, it is observed for Problem –B, School and College Problem that Pi contributed 10 % of variance on Problem-B which is supported by the ANOVA for the Model in the prediction of Problem-B from Pi (SS = 1438.91, F = 38.06; $p < .01$). The inclusion of PAG in the former model revealed 1 % of changes in variances explained leading to 11 % variances explained in the prediction of Problem- B from Pi and PAG which is supported by the ANOVA for the model (SS = 1611.87, F = 21.53; $p < .01$). The final inclusion of BC into the former model contributed only 0.1 % of changes which is very small and negligible for the change resulting no differences after inclusion of BC into Pi and PAG in the prediction of Problem B from Pi, PAG and BC which is also supported by the ANOVA for the model (SS = 1623.75, F = 14.43; $p < .01$).

The contribution of different subscale of parenting styles to School/College problems got confirmatory findings that parental involvement including parental values and expectations positively related to achievement outcomes (Gottfried & Gottfried, 1989; Paulson, 1994; Steinberg, Lamborn, Dornbusch, & Darling, 1992),

and also authoritative parenting predicts good academic performance among European Americans (Steinberg, Dornbusch, & Brown, 1992; Steinberg, Darling, & Fletcher, 1995), other research finding stated that behavioural control would be expected to be associated with parent-imposed consequences for misconduct and has frequently been associated with positive child and adolescent outcomes (Dishion & McMahon, 1998).

For Problem-C, Social Problem, The Table -31 shows that Pi contributed 3.2 % of variance on Problem-C which is supported by the ANOVA for the model in the prediction of Problem-C , from Pi (SS = 61.43, F = 11.97; $p < .01$). The inclusion of PAG into the former model revealed 3.3 % of change in variances explained resulting 7 % variance explained in the prediction of Problem-C from Pi and PAG which is supported by the ANOVA for the model (SS = 123.69, F = 12.44; $p < .01$). The final inclusion of BC into the former model revealed that contribution is only 0.1 % which is negligible for the change leading to the final inclusion of BC has no significant effect on Pi and Pag in the Problem-C which is also supported by the ANOVA for the model in the prediction of Problem-C from Pi, Pag and BC (SS = 125.78, F = 8.42; $p < .01$).

The present finding had confirmatory evidences in the available literature that children raised in authoritative homes as compared to those reared in permissive or authoritarian homes demonstrate higher levels of competence, achievement, social development, self-esteem, and mental health (Maccoby and Martin, 1983) and parental firm control has been found related to lower levels of problem behaviours in working-class and disadvantaged African American teens (Steinberg, et al., 1991; Taylor and Roberts, 1995) but restrictive control may limit adolescents age-appropriate autonomy that leads to higher levels of problem behaviours (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994).

Permissiveness and ineffective parenting (poor problem solving skills, weak supervision skills, parent-adolescent conflict) and sibling conflict (hitting, fighting, stealing, cheating) at 10-12 years was linked to antisocial behaviour and poor peer relations from 12-16 years of age (Bank, Burraston, & Snydei, 2004), while restrictive control which limit appropriate autonomy related to higher levels of

problem behaviours (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994). It is also reported that parents who remain actively engaged as parents are going to be more effective than parents who disengage, but within this wide range, effectiveness of parenting practices is likely to depend in part on adolescent socialization, along with other factors (such as personality and other social and environmental influences) (Maccoby & Martin (1983), Adalbjarnardottir & Hafsteinsson (2001) also found that adolescents who perceived their parents to be authoritative were least likely to use the drugs examined in the study, while those who perceived their parents to be uninvolved were most likely to engage in drug use.

The Table-33 revealed that Pi contributed 2.3 % variance on Personal Problem(Problem-D) which is supported by the ANOVA for the model in the prediction of Problem-D from Pi(SS =461.85, F = 8.40; $p < .01$). The inclusion of PAG into the model shows again 2.3 % changes of variance explained resulting to 5 % variances explained in the prediction of Problem-D from Pi and PAG which is also supported by the ANOVA for the model in the prediction of Problem –D from Pi and PAG (SS = 928.06, F = 8.63; $p < .01$). The final inclusion of BC into the former model has no contribution for the change resulting 5 % variance explained so far after inclusion of BC in the prediction of Problem D from Pi, PAG and BC which is supported by the ANOVA for the model(SS = 928.41, F = 5.70; $p < .01$).

The finding was in substantiate support that children raised in authoritative homes, as compared to those reared in permissive or authoritarian homes, demonstrate higher levels of competence, achievement, social development, self-esteem, and mental health (Maccoby and Martin, 1983), and mothers low on Parental Warmth, supervision and Monitoring have the most negative outcomes. Substantial research confirms that as well as being a cause of child behaviour problems, ineffectual parenting practices can also be the result of unresponsive and uncontrolled children (Patterson, Reid, & Dishion, 1992). And it was also reported that Psychological autonomy is a fundamental aspect of child development, related to aspects of self-control and related self processes, mastery motivation, and competence (Bridges, 2003; Maccoby & Martin, 1983. Many researchers have suggested that the changes in parent–child relationships that occur between late childhood and early adolescence are instigated by children's growing desire to

increase their sense of autonomy and independence as children become less satisfied with parents' authority over their personal lives as they mature (Smetana, 1989). Other research has shown that poor parent management, typified by low involvement, inadequate monitoring, and poorly articulated expectations, have been associated with precocious substance use (Distefan, Gilpin, Choi, & Pierce, 1998; Jackson, Bee-Gates, & Henrickson, 1994; Sieving, Maruyama, Williams, & Perry, 1998; Steinberg, Fletcher, & Darling, 1994) and conduct problems (Ary et al., 1999; Chung, et al., 2002; Capaldi & Short, 2003; Fergusson et al., 1996; Wiesner & Silbereisen, 2003).

From the Table -34, it is observed that Durbin Watson Test for serial correlation of the residuals and case-wise diagnostics cases meeting the selection criterion do not deviate from the normal range, all results show the normal range of residuals.

Observation of Table-32 revealed that Pi, PAG and BC have contributed a very small percentage of changes in the cognitive level (RSPM).

By observing Table -34 for performance record of Pi, Pag and BC for factor a, b, c, d, and e altogether (RSPM), it is seen that Pi contributed only 0.4 % of performed/variance which is supported by the ANOVA for the model in the prediction of RSPM from Pi (SS = 172.80, F = 1.46 ; p > .05).The inclusion of PAG into the former model revealed that 2.9 % changes is performed /variances explained leading to 3.3 % performed/variances explained in the prediction of all factors of RSPM from Pi and PAG which is supported by the ANOVA for the model(SS =1388.23, F = 6.02; p < .01).The final inclusion of BC into the former model has contributed only 0.1 % change of performed/variance explained leading to 3.4% performed/variances explained which is very small and negligible for the change in the prediction of Factor a, b, c, d, and e altogether from Pi , PAG and BC which is also supported by the ANOVA for the model (SS = 1437.70, F = 4.15; p >.05).

It is observed from the said table that Durbin Watson Test in all factor. a, b, c, d, and e, the result show the normal range of residuals.

By observing Table -35, it is revealed that Parental involvement (Pi) has 27 % independent negatively effect on Family Problem, Problem-A, without considering other predictors($p < .01$), Psychological Autonomy Granting(PAG) also contributed 36 % independent negatively effect on Problem- A ($p < .01$), whereas Behavioural Control(BC) contributed only 2.9 % which is negligible for effecting the Problem A. The result revealed that the permissive parenting styles (parental involvement) and Pag (authoritative) parenting styles will help in preventing or solving youth's personal problems as it has negative relations with youth personal problems where as behavioural control (or Authoritarian) parenting does not have much contribution to solve the Family problems among the youth Mizo. The finding also got support in explaining the contribution of Intelligence on youth problems as authoritative parenting style has been called "inductive discipline," that it helps kids become more empathic, helpful, conscientious, and kind to others (Krevans and Gibbs 1996; Knafo and Plomin 2006) where as Authoritarian caused risky behaviours (Ginsburg et al 2004), other study also reported that Authoritative parents appeared to be more successful than authoritarian parents in preventing their 14-year old adolescents from drinking; however, there was not a significant difference between authoritative parents and authoritarian parents in their ability to prevent their 17-year old adolescents from heavy drinking and illicit drug use concluded that the authoritative parenting style is protective in regards to adolescent drug use, both concurrently and longitudinally (Adalbjarnardottir & Hafsteinsson, 2001) The other results reported that adolescents who perceived their parents as authoritative were less likely to have used each substance in the study (cigarettes, alcohol, hashish, and amphetamines) than adolescents who perceived their parents as indulgent (i.e., permissive) or neglectful (i.e., uninvolved).

For School and College Problem, Problem-B, the table shown that Pi has contributed 31 % independent negatively effect on Problem B(significant .01 level) PAG also contributed 11 % independent negatively effect on Problem B ($p < .05$). Again, BC has contributed only 3 % which is negligible for affecting the Problem B. Other research reported that adolescents experience heightened developmental outcomes when reared by authoritative parents (e.g., Dornbusch et al., 1987; Gerdes & Mallinckrodt, 1994; Steinberg et al., 1992).

It is also revealed that in the Table-35 for Social Problem, Problem C. Pi contributed 19 % independent negatively effect on Problem-C (significant at .01 level) and PAG contributed 18 % independent negatively effect on Problem C ($p < .01$), but BC contributed only 3.6 % which is negligible for effecting the Problem-C. The finding got support of research evidence that authoritarianism related with poorer social functioning (Zhou et al 2004). Latin cultures report that authoritarian parents are more likely to have kids with low social competence (Martinez et al 2007; Garcia and Gracia 2009). Parental involvement positively related to achievement outcomes (Steinberg, Lamborn, Dornbusch, & Darling, 1992); restriction of age-appropriate autonomy related to higher levels of problem behaviours (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994).

In the same table it is seen that Pi contributed 17 % independent negatively effect on Personal Problem, Problem-D(significant at .01 level).PAG has also 15 % negatively independent effect on Problem-D ($p < .01$),whereas BC has 0.4 % positively independent effect on Problem –D which is negligible for effecting the problem-D in matching with the findings that children whose parent were permissive were more likely to suffer from low self esteem, anxiety, and depression (Drairy 2004) while authoritarian children were more prone to risky behaviours (Ginsburg et al 2004), other study reported that Psychological Autonomy Granting and Parental involvement are associated with greater social competence, autonomy, positive attitudes toward school and work, academic achievement and self-esteem, as well as with less depression, school misconduct, delinquency and drug use (Lamborn, Mounts, Steinberg & Dornbusch, 1991; Parish & McCluskey, 1992; Steinberg, Lamborn, Dornbusch & Darling, 1992; Allen & Hauser, 1996).).

From Table.36 it is observed that Tolerance and Variance Inflation Factor (VIF) values are in proper situations and no ones are deviated from the normal.

In Table - 36, the predictions of sub scores of RSPM from Parent Inventory measures are shown separately for different factors *RSPM.* Table.4.has shown that for all factors, factor a, b, c, d, e altogether say RSPM, PAG contributed 17 % positive independently effect on RSPM (significant at .01 level) whereas Pi and BC contributed 10 % positive and 3.7 % negative respectively both are negligible for

effecting RSPM. In conformity of this finding, Dornbusch, et al. (1987) found that authoritative parenting is positively correlated with adolescent school performance, whereas authoritarian and permissive parentings were negatively related to schooling with influences on intelligence (Ceci & Gilstrap, 2000; Christian, Bachnan, & Morrison, 2001). Steinberg, Elmen, and Mounts (1989) found that authoritative parenting among Americans facilitated academic success in adolescent children. Other studies found that academic success was negatively associated with both authoritarian (high control, low responsiveness) and permissive (low control, high responsiveness) parenting styles, whereas authoritative (high control, high responsiveness) parenting was positively associated with good grades among high school students (Dornbusch, Ritter, Leidderman, Roberts, & Fraleigh, 1987).

In Table -36 it is observed that the Collinearity Statistics viz. Tolerance and Variance Inflation Factor (VIF) are in proper position and no ones are deviated from the normal.

The overall analyses of the study highlighted the contribution of parenting styles to Adolescent problems and cognitive functions: that

(1) Parental involvement contributes 5 %, psychological autonomy granting contributes 13 % and behavioural control contributes 1% to the *family problems* of the adolescent.

(2) Parental involvement contributes 9 %, psychological autonomy granting contributes 1 % and behavioural control was negligible to the *School and college problems* of the adolescent.

(3) Parental involvement contributes 3 %, psychological autonomy granting contributes 3 % and behavioural control contributes 1% to the *Social problems* of the adolescent.

(4) Parental involvement contributes 2 %, psychological autonomy granting contributes 2 % and behavioural control was negligible to the *Personal and Over Sensitivity problems* of the adolescent.

(5) Parental involvement contributes 4 %, psychological autonomy granting contributes 29 % and behavioural control contributes 1% to the cognitive functioning (intelligence) of the adolescent.

The results revealed the different parenting styles relation to the Adolescent problems and cognitive functions such as:

(1) **For Family Problem**, *Parental involvement* was negatively significant related (r = -.27**), revealed that when parental involvement increase family problems of the child will be decreased and the finding got confirmatory evidences in the available literature that adolescent girls with permissive mothers exhibited more minor delinquent behaviours than those with authoritative mothers (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994); other study reported that Low Parental involvement in adolescent relationships with peers is strongly related to association with antisocial peers, and is occasioned by such factors as parental antisocial behaviour, parental transitions, and poverty (e.g. Eddy et al ., 2001). A positive parent-child relationship and parental involvement have been found to be protective among at-risk children (Cowen, Wyman, Work, & Parker, 1990), and Stouthamer-Loeber et al. (1993) found a positive relationship with parents to predict non-delinquency; *psychological autonomy granting* negatively significant (r = -. 36*) and this finding was in confirmatory to the earlier finding that parental warmth and acceptance have been found to be associated with better academic achievement, higher levels of reported self-reliance, and fewer problem behaviours in African American families in both high and low-risk communities (Gonzales, Cauce, Friedman, and Mason, 1996; Steinberg, Mounts, Lamborn, and Dornbusch, 1991; Taylor and Roberts, 1995); Other studies suggest that authoritative parenting is associated with lower rates of problem behaviours than autocratic, permissive or uninvolved parenting (Steinberg, 1991). Among American youth, warm parental interactions are associated with effective problem solving ability in both the adolescent and the family as a whole; however, hostile interactions are associated with destructive adolescent problem solving behaviours (Ge, Best, Conger & Simons, 1996a; Rueter & Conger, 1995). Similarly, among German adolescents, parental behaviours marked by approval and attention to the positive behaviour of the youth is associated with an adolescent who feels he or she is capable of controlling events that can affect him or her (Krampen, 1989); and *behavioural control* contributes some but not at significant level while restrictive control, which

may limit adolescent's age-appropriate autonomy, has been found to be related to higher levels of problem behaviours (Mason, Cauce, Gonzales, Hiraga, and Grove, 1994), with the family problems of adolescent.

(2) **For School and College Problem**, *Parental involvement* was negatively significant related (r = -.31**) and the finding was in congruent with the earlier finding that parental involvement positively related to achievement outcomes (Steinberg, Lamborn, Dornbusch, & Darling, 1992); Other study reported that parental involvement, encouragement of psychological autonomy, and demands for age-appropriate behaviour combined with limit setting and monitoring (i.e. Authoritative parenting) contribute to good psychosocial, academic and behavioural adjustment among adolescents (Baumrind, 1971, 1991; Steinberg, Dornbush & brown, 1992; Steinberg, Darling & Flatcher, 1995); *psychological autonomy granting* negatively significant (r = -. 11*) and the finding got confirmatory findings that authoritative parenting predicts good academic performance among European Americans (Steinberg, Dornbusch, & Brown, 1992; Steinberg, Darling, & Fletcher, 1995), and Moreover, when parents are attuned to their child's development and support his or her autonomy in decision making, the youth is better adjusted and gains in self esteem across the junior high school transition (Lord, Eccles, & McCarthy, 1994) The children of authoritative parents are found to be more competent, both socially and academically (Baumrind, 1989 ; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987 ; Lamborn, Mounts, Steinberg, & Dornbusch, 1991), also reported that authoritative parenting was found to have a positive impact on academic adjustment and adolescents with emotional, and caring environment associated with open communication may have an advantage when making the transition into a college environment as they have achieved greater mastery and self-regulation of their environment while growing up (Brooks, 1996); and *behavioural control* contributes some but not at significant level, with the school and college of adolescent. Recent work has demonstrated that the effects of parenting style differ for different sub cultural groups. Asian American parents, for example, have the least authoritative and most authoritarian child-rearing style of the sub cultural groups that have been studied; yet their children have the highest school

achievement (Dornbusch et al., 1987 ; Steinberg, Dornbusch, & Brown, 1992) but not found in the present study.

(3) **For Social Problem**, *Parental involvement* was negatively significant related (r = -.19**)and the finding has substantial research confirms that as well as being a cause of child behaviour problems, ineffectual parenting practices can also be the result of unresponsive and uncontrolled children (Patterson, Reid, & Dishion, 1992. Other research stated that children whose parent were permissive were more likely to suffer from low self esteem, anxiety, and depression (Drairy 2004); *psychological autonomy granting* negatively significant (r = -. 18**) and the finding got substantiate support that children raised in authoritative homes, as compared to those reared in authoritarian homes, demonstrate higher levels of competence, achievement, social development, self-esteem, and mental health (Maccoby and Martin, 1983); and other study also reported that Authoritative parents appeared to be more successful than authoritarian parents in preventing their 14-year old adolescents from drinking and concluded that the authoritative parenting style is protective in regards to adolescent drug use, both concurrently and longitudinally (Adalbjarnardottir & Hafsteinsson, 2001), and *behavioural control* contributes some but not at significant level, with the social problems of adolescent.

(4) **For Personal and Over Sensitivity Problem**, *Parental involvement* was negatively significant related (r = -.17**) find authenticated to the earlier finding that children who were reared in permissive demonstrate high levels of competence, achievement, social development, self-esteem, and mental health (Maccoby and Martin, 1983), *psychological autonomy granting* negatively significant (r = -. 15**) authoritative parenting style helps kids to become more empathic, helpful, conscientious, and kind to others (Krevans and Gibbs 1996; Knafo and Plomin 2006), and *behavioural control* contributes some but not at significant level and the earlier finding mentioned that authoritarianism related with poorer social functioning (Zhou et al 2004), with the personal and over sensitivity problems of adolescent.

(5) **For measuring cognitive functioning**, *Parental involvement* was positively significant related (r = .10**) .this finding got confirmation of other study reported that those reared in permissive demonstrate high levels of competence,

achievement, social development (Maccoby and Martin, 1983); *psychological autonomy granting* negatively significant (r = .17**) this finding was in confirmatory to the earlier finding that parental warmth and acceptance associated with better academic achievement in African American families in both high and low-risk communities (Gonzales, Cauce, Friedman, and Mason, 1996; Steinberg, Mounts, Lamborn, and Dornbusch, 1991; Taylor and Roberts, 1995); and *behavioural control* contributes some but not at significant level and other studies found that academic success was negatively associated with authoritarian (Dornbusch, Ritter, Leidderman, Roberts, & Fraleigh, 1987) with the cognitive functioning (intelligence) of adolescent. Other research finding also stated that authoritative parenting related with children's academic achievement and pro-social behaviour. Dornbusch, et al. (1987) found that authoritative parenting is positively correlated with adolescent school performance, whereas authoritarian and permissive parenting are negatively related.

In conclusion, the overall analyses of the behavioural measures (as incorporated in the present study provided that (i) empirical basis sufficient enough to conclude their replicability in the projected population: substantial item-total coefficient of correlation (and the relationship of the specific items of the specific scales as index of the inter-consistency), reliability index (Cronbach alpha) and the relationship between the sub-scales /sub factors measures of each of the behavioural measures, (ii) the relationships and the factors structure of the behavioural measures, as expected by theory, and the theoretical expectations formulated for the conduct of the present study, (iii) regression analysis and the resulting ANOVA highlighted sufficient significant F-ratios at each level of the deletion of the predictor (the independent variable) in the prediction of each sub scale /sub factors measures of the dependent variables, (iv) the relationships of the youth problems and parenting styles, and parenting styles with cognitive functioning, (v) the results of ANOVA 2x2x2 (2 ecology x 2 gender x 2 age) provided empirical backgrounds relating to the causal effects of ‘gender’, ‘ecology’ and ‘age’ level on measures of the behaviour. The parenting styles emerged to portray their effect on various areas of adolescent problems and cognitive function. On the whole the findings of the study proved empirical bases proved sufficient enough in conformity to the theoretical expectations as set-forth for the conduct of the study.

The result manifested that the independent effect and interaction effect of the independent variables 'Ecology'. 'Gender' and 'Age' group on parenting styles, Youth problems and cognitive function among the Mizo adolescents as hypothesized by the present population. Further extended studies by incorporating larger samples and more repetitive measures of behavioural problems are desirable to be replicated in support of the findings, and for formulation of counseling technique for parent and adolescent, and implementation of behavioural intervention programmes to the cultural group of the Mizo adolescents. Though the present study was not free from such limitations but it clearly portrayed the youth problems and cognitive function can be predicted through parenting styles, and those parenting styles were varied in according to 'Ecology', 'Gender', and 'Age' group. So, the present study was being the first endeavour in the target population would throw light for the future academic pursuit in framing prevention, rehabilitation of the prevailing adolescent problems in the target population of the Mizo.

The findings of this study strongly support the significance of parenting, that is, a strong awareness of the importance of parenting may alleviate problem behaviours among minority adolescents. The study revealed the importance of 'Ecological', 'Gender' and 'Age' group in predicting different behavioural problems and cognitive function among the adolescents. This small research has provided the prevailing parenting styles in the different 'ecology' setting, differentiation between 'Gender' and 'Age group' among the population under study, and its implication to different areas of Adolescent's problems regarding family problems, school and college problems, social problems, and personal problems of oversensitivity along with cognitive function. This finding would not only enrich academic endeavour but also help policy makers in framing awareness, prevention and rehabilitation of the future adolescents of Mizo.

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APPENDIX- I

(1)

Demographic profile

Code No _____

Name : _____

Age : _____

Sex : _____

Birth Order : _____

Family Size : _____

Type of family : Nuclear / Joint family : _____

Number of sibling (s) : _____

Father's Name : _____

Father's occupation : _____

Name of mother : _____
Mother's occupation : _____

Name locality : _____

Religion : _____

Last exam passed : _____

Percentage marks obtained in the last exam: _____

APPENDIX- II

(2)

Youth Problem Inventory

Read the following statements carefully and give your answer according to your feeling on the responses given against each statement (true, partly true, untrue or false) .

AREA 'A'

1.	My parents are uncaring of my needs.	True / partly true / untrue(false)
2.	My parents don't help me in solving my problems.	True / partly true / untrue(false)
3.	My parents keep strict vigil over my activities.	True / partly true / untrue(false)
4.	My parents don't allow me to work freely.	True / partly true / untrue(false)
5.	My parents restrict my participation in games, sports, drama or traveling.	True / partly true / untrue(false)
6.	My parents scold me for not securing good marks, inspite of my hard work.	True / partly true / untrue(false)
7.	My parents blame me only for any loss in the home.	True / partly true / untrue(false)
8.	My parents criticize me for whatever I do.	True / partly true / untrue(false)
9.	My parents compel me to shoulder household responsibilities.	True / partly true / untrue(false)
10.	My parents expect me to perform beyond my bounds.	True / partly true / untrue(false)
11	My parent often point out for my not being courteous and refined before others	True / partly true / untrue(false)
12.	My parents restrict me about my friends.	True / partly true / untrue(false)

13.	My parents try to know my private affairs.	True / partly true / untrue(false)
14.	My parents say that I should not do anything without their consent.	True / partly true / untrue(false)
15.	My parents say that I am unable to understand my own well being.	True / partly true / untrue(false)
16.	My parents domineer the family.	True / partly true / untrue(false)
17.	My parents say that sons and daughters don't enjoy equal rights.	True / partly true / untrue(false)
18.	My parents discriminate between the position of sons and daughters.	True / partly true / untrue(false)
19.	My parents consider me a burden upon themselves.	True / partly true / untrue(false)
20.	My parents reject most of my requests.	True / partly true / untrue(false)
21.	I fear to tell my parents of my trivial mistakes even.	True / partly true / untrue(false)
22.	I fear to tell my parents about my problem even.	True / partly true / untrue(false)
23.	My parents wish me to fulfill their desires first.	True / partly true / untrue(false)
24.	My parents wish me to follow their own ideals.	True / partly true / untrue(false)
25.	My parents often have differences between themselves.	True / partly true / untrue(false)
26.	I often feel that amongst my father-mother, bother-sisters none is my own.	True / partly true / untrue(false)
27.	I feel ill of the absence of my parents even for a short while.	True / partly true / untrue(false)
28.	It is not possible for me to do anything without the help of or guidance of my parents.	True / partly true / untrue(false)

29.	I have difference with most of the ideas of my parents.	True / partly true / untrue(false)
30.	My brothers and sisters take themselves superior to me on every count.	True / partly true / untrue(false)
31.	My brothers and sisters are never with me	True / partly true / untrue(false)

AREA 'B'

1.	Inspite of I wish to,I fear to participate in extra curricular activities at school/college.	True / partly true / untrue(false)
2.	I am afraid of my teachers for no reason	True / partly true / untrue(false).
3.	I hesitate to offer any suggestions to my teachers.	True / partly true / untrue(false)
4.	I fear to tell my difficulties to the teachers.	True / partly true / untrue(false)
5.	My teachers never appreciate me, however well I may perform.	True / partly true / untrue(false)
6.	My teachers are unable to understand me well.	True / partly true / untrue(false)
7.	I feel that either most of my teachers have shallow knowledge or they come un-prepared to the class.	True / partly true / untrue(false)
8.	My teachers are unable to explain their lectures well.	True / partly true / untrue(false)
9.	My teachers talk to me in a satirical manner	True / partly true / untrue(false).
10.	In the class my teachers treat me with ridicule.	True / partly true / untrue(false)
11.	My teacher scold me for not fault of mine	True / partly true / untrue(false).
12.	My teachers behave in a discriminatory manner.	True / partly true / untrue(false)

13. I wish to make some of my classmates friends, but it does not happen. True / partly true / untrue(false)

14. I feel my classmates are jealous of me. True / partly true / untrue(false)

15. My classmates laugh at me. True / partly true / untrue(false)

16. I am weak in some of the subjects taught in the class. True / partly true / untrue(false)

17. I am unable to get the help of my teachers in the subject in which I require most. True / partly true / untrue(false)

18. I don't know better way to study well. True / partly true / untrue(false)

19. I don't get enough opportunities in the school/college for acquiring new knowledge. True / partly true / untrue(false)

19. The subjects of my interest are not taught in my school/college. True / partly true / untrue(false)

AREA 'C'

1. I take my dress as inferior before others. True / partly true / untrue(false)

2. If my social status were higher, it would have been much better. True / partly true / untrue(false)

3. I feel ashamed at the poor economic condition of my family. True / partly true / untrue(false)

4. Inspite my wish I hesitate in interacting with others. True / partly true / untrue(false)

5. Others don't like to interact with my family or me. True / partly true / untrue(false)

AREA 'D'

1.	I have fear of marriage.	True / partly true / untrue(false)
2.	I feel sick in talking to the people of opposite sex except my near relatives.	True / partly true / untrue(false)
3.	Being laughed at or criticized keeps me worried for long.	True / partly true / untrue(false)
4.	Even a little thing deeply pierces my heart.	True / partly true / untrue(false)
5.	My family or personal incidents deeply sadden me.	True / partly true / untrue(false)
6.	I remain worried, as I don't keep good health.	
7.	I feel inferior on account of my physical constitution.	True / partly true / untrue(false)
8.	I am less charming than an average person.	True / partly true / untrue(false)
9.	My voice should have been more melodies	True / partly true / untrue(false)
10.	I feel ashamed of my manners and behaviour before others.	True / partly true / untrue(false)
11.	I feel that there should be change in my habits.	True / partly true / untrue(false)
12.	I am worried as I am unable to decide which occupation to adopt in future.	True / partly true / untrue(false)
13.	I am worried about my present.	True / partly true / untrue(false)
14.	I feel difficulty in speaking or lecturing before others.	True / partly true / untrue(false)
15.	I am unable to impress others with my personality.	True / partly true / untrue(false)

16. I am unhappy because I am not proficient in games and sports. True / partly true / untrue(false)

17. Whatever I may do, I don't get due appreciation. True / partly true / untrue(false)

18. Since people don't attach due value to me, I am unenthusiastic. True / partly true / untrue(false)

19. I don't know why, even before commencing any work I often feel that it will not be properly done. True / partly true / untrue(false)

20. Often in hurry I do things wrongly. True / partly true / untrue(false)

21. I am unable to do anything significant. True / partly true / untrue(false)

22. I feel that I am inferior to others. True / partly true / untrue(false)

23. I have no merit. True / partly true / untrue(false)

24. There is no meaning of my life. True / partly true / untrue(false)

YOUTH PROBLEM INVENTORY

(Mizo Version)

1. Code Number :_____

2. Age :_____Sex(Mipa/Hmeichhia_____

3. College/School_____

4. Khua/Chenna _____

5. Lehkha zir chen(Exam passed hnu hnun ber)_____

A hnuaia thu te hi ngun takin chhiar la,Ni ngeia i hriat zawnah chauh tick mark i thai dawn nia.I hming ziah a ngai lova,i chhanna hi thuruk anga vawn ani dawn bawk a,chuvangin huai takin thudik chauh sawi ang che.Chhanna pakhat chauh awm zel tur ani a,ngaihdan pahnih i neih pawhin ni deuh zawka i hriatah tal i thai mai anga,engti zawng mahin hmun hnih ah thai loh tur ani a,zawhna chhan lova hnuchhiah loh bawk tur ani.

AREA 'A'

	DIK	ATHEN DIK	DIKLO.
1. Ka nu leh pa ten ka mamawh an ngaihtuah lo.	____	____	____
2. Ka harsatna ti kiang turin min pui ngai lo.	____	____	____
3. Ka thil tih engkim min en thla reng thin.	____	____	____

4. Zalen taka thil engmah ka tih an phal ngai lo. ____ ____ ____

5. Zin khawthawn leh infiamna ang chi ah min khuahkhirh tlat. ____ ____ ____

6. Nasa takin zir mah ila,ka tih that loh chuan min hau hrep zel. ____ ____ ____

7. Ina thil a bo reng rengin keimah min puh zel. ____ _____ ____

8. Ka thil tih a piang ka nu leh pa ten min sawi sel reng thin. ____ _____ ____

9. Inchhung thil tih tul a piang ka mawhphurhna ah an dah tlat. ____ _____ _____

10. Ka tih theih bak thleng ka lak atang in an beisei. ____ _____ _____

11. Mi zingah huaisen tawk lo leh lang mawi tawk lovah min ngai. _____ _____ _____

12. Ka thian kawm turah pawh chin min siam sak thin. _____ _____ _____

13. Ka mimal thil hriat ve zel an tum. _____ _____ _____

14. An phalna lo chuan engmah ti lo turin min hrilh. _____ _____ _____

15. Ka tana tha tur paw hre thiam lo ah min ngai. _____ _____ _____

16. Chhungkua-ah engkim nu leh pa thu vek ani mai. _____ _____ _____

17. Fanu leh Fapa te dinhmun a in ang lo an ti thin. _____ _____ _____

18. Fanu leh fapa kar an thliar hrang nasa hle. _____ _____ _____

19. An phur ti rit tu-ah min ngai. _____ _____ _____

20. Ka thil dil reng reng an rem ti ngai meuh lo. _____ _____ _____

21. Ka thil tihsual palh takngial pawh ka hrilh ngam ngai lo. _____ _____ ____

22. Ka harsatna an hnenah ka thlen ngam lo. _____ _____ ____

23. An duh zawng ti hmasa zel turin min duh. _____ _____ ____

24. An duh thusam ang thlapa awm turin min duh. _____ _____ _____

25. Nu leh pa ngaihdan pawh an in mil chuang lo. _____ _____ _____

26. Ka chhungte zinga tu-a-mah hi min tan an awm lo niin ka hria. _____ _____ _____

27. Nu leh pa an awm loh chuan reilote pawh hrehawm ka ti hman hle. _____ _____ _____

28. Nu leh pa kaihhruaina lo chuan engmah ka ti thei lo. _____ _____ _____

29. Nu leh pa te ngaihdan tam ber Ka tawmpui thei lo. _____ _____ _____

30. Ka unaute hi kei aiin engkimah chungnung zawkin an in hria. _____ _____ _____

31. Ka unaute hi eng thilah mah ka lamah an tang ngai lo. _____ _____ _____

A R E A 'B'

1. School/College thil tihna ang chi ah ka duh angin ka tel thei lo. _____ _____ _____

2. A chhan leh vang pawh awm hran lovin Zirtirtute ka hlauh tlat. _____ _____ _____

3. Zirtirtu hnenah rawtna ka thlen ngam lo. _____ _____ _____

4. Ka harsatna te an hnenah ka hrilh ngam lo. _____ _____ _____

5. Ka tih that viau pawhin min hlut pui ngai lo. _____ _____ _____

6. Min hre thiam tawk lo. _____ _____ _____

7. Kan zirtirtu tam ber hi chu an hriatna a pawn langa Class lak dawn in an in buatsaih tha tawk lo bawk niin ka hria. _____ _____ _____

8. An thil zirtir an sawifiah thiam thiam tawk lo. _____ _____ _____

9. Zirtirtuten inti thu nei leh khawng tak takin min be thin. _____ _____ _____

10. Class ah fiamthu thawh nan min hmang thin. _____ _____ _____

11. Ka tih sual lovah pawh min hau fo _____ _____ _____

12. Mi enhran tlat na neiin ka hria. _____ _____ _____

13. Ka pawl pui te kawmngeih ka tum ve pawhin ka thei lo. _____ _____ _____

14. Ka thian te hian mi itsikna an nei. _____ _____ _____

15. Ka pawlpui ten min nuih zat tlat. _____ _____ _____

16. Subject thenkhat hi chu ka thiam thei thlawt lo. _____ _____ _____

17. Tanpui ka ngaih na bik subject ah kan zirtirtuten min pui thei lo. _____ _____ _____

18. Zir dan kawng tha zawk ka hre lo. _____ _____ _____

19. Hriatna zau zawk nei turin kan School/College hi a tha tawk lo. _____ _____ _____

20. Ka subject tui zawng ber kan School/College ah a zir theih loh. _____ _____ _____

A R E A ‘C’

1. Midang hma ah ka incheina te hi nalh lo bik riau-in ka hre thin. ____ ____ ____

2. Tun ai hian kan dinhmun hi hausa deuh ila chuan ka changkang sawt ang. ____ ____ ____

3. Kan chhungkaw retheihna hian min Ti zak thin ngawt mai. ____ ____ ____

4. Midang kawm ve pawh tum mah ila kan retheih vangin ka inthlahrung tlat. ____ ____ ____

5. Midang pawh hian kei mah leh kan chhungkua reng reng hi min kawm an hreh deuh tlat. ____ ____ ____

A R E A 'D'

1. Nupui/pasal neih hrim hrim hi ka hlau deuh tlat. ____ ____ ____

2. Kan chhungkhat hnai an nih loh chuan ka mipat pui/hmeichhiat pui ni lo te nena inbiak hi nuam lo ka ti tlat. ____ ____ ____

3. Min min nuihzat emaw sawisel emaw hian a hnu ah ka vei reng zel.____ ____ ____

4. Thil hote pawhin ka rilru a ti na thin. ____ ____ ____

5. Kan chhungkua leh keima chunga thil thlengin min ti lungngai. ____ ____ ____

6. Ka hrisel tawk lohna hi ka ka vei vei reng thin. ____ ____ ____

7. Ka taksa lan dan avangin mi aiin ka indah hniam tlat. ____ ____ ____

8. Ngaihnobei lamah mi vantlang ka ang pha lo. ____ ____ ____

9. Ka aw hi tun aiin mawi deuh se ka ti. ____ ____ ____

10. Mi kara ka awm dan nungchang hi ka zahpui thin. ____ ____ ____

11. Ka chin thin thlak tur tam tak awm in ka hria. ____ ____ ____

12. Engtinnge ei ka la zawn ang tih lungkhamna hian min ti buai. ____ ____ ____

13. Tuna ka awm dan hian min ti rilru hah tlat. ____ ____ ____

14. Mi hma a tawng leh thusawi hi ka harsat thin. ____ ____ ____

15. Ka nungchang hian mi dang a a ti lawm thei lo. ____ ____ ____

16. Infiamna lam ka theih loh vang hian ka lung ngai thin. ____ ____ ____

17. Thil engpawh ti ila,ka phu tawka fak leh lawm ka hlawh ngai lo. ____ ____ ____

18. Miin min ngaihsan loh avang hian engmah hi phur leh tha taka tih ka peih lo. ____ ____ ____

19. Thil tih tan hma hauhin,a puitling leh tak tak chuang loving tih ngaih dan ka nei tlat thin. ____ ____ ____

20. Hmanhmawh deuha ka tih thin avangin thil ka ti sual rem rum thin. ____ ____ ____

21. Engmah hi felthlapin ka ti thei lo. ____ ____ ____

22. Midang aia hnuai hnung deuh bika in hriatna ka nei tlat. ____ ____ ____

23. Engmah tangkaina ka nei lo. ____ ____ ____

24. Ka dam reng pawh hian awmzia neiin ka hre lo. ____ ____ ____

APPENDIX- III

(16)

PARENTING INVENTORY.

Background Demographic Sheet.

Name :_____

Age :_____

Sex :_____

Birth Order :_____

Family Size :_____

Joint/Nuclear Family :_____
(No of sister:____brother: ____)

No. of siblings (count from the eldest, 1,2,3…..) :_____

Father's Name and Surname:_____

Mother's Name and Surname:_____

Father's Occupation :_____

Mother's Occupation :_____

Name of School/College ;_____

Your Locality :_____

Religion :_____

Last Examination passed. : _____

Percentage of Mark Obtained in the last Examination:_____

PARENTING STYLES SCALE(PSS)

Please answer the set of questions about the parents (or guardians)you live with. If you spend time in more than one home, answer the questions about parents (or guardians) who have the most say over your daily life.

Read each item carefully. Then write the number that shows how much you agree with each statement.

1- if you AGREE STRONGLY with the item

2- if you AGREE SOMEWHAT with the item

3- if you DISAGREE SOMEWHAT with the item

4- if you DISAGREE STRONGLY with the item

1. I can count on my parents to help me out, if I have some kind of problem _____

2. My parents say that you shouldn't argue with the adults. _____

3 My parents keep pushing me to do my best in whatever I do. _____

4. My parents say that you should give on arguments rather than make people angry. _____

5. My parents keep pushing me to think independently. _____

6. When I get a poor grade in school, my parents make my life miserable. _____

7. My parents help me with my school work if there is something I don't understand. _____

8. My parents tell me that their ideas are correct and that I should not question them. _____

9. When my parents want me to do something they explain why. _____

10. Whenever I argue with my parents, they say things like, "You'll know better when you grow up." _____

11. When I get a poor grade in school, my parents encourage me to try harder. _____

12. My parents let me make my own plans for things I want to do. _____

13. My parents know who my friends are. _____

14. My parents act cold and unfriendly if I do something they don't like. _____

15. My parents spend time just talking with me. _____

16. When I get a poor grade in school, my parents make me feel guilty. _____

17. My family does fun things together. _____

18. My parents won't let me do things with them when I do something they don't like. _____

19. In a typical week, what is the latest you can stay out on SCHOOL NIGHTS (Monday- Thursday) ?

I am not allowed out

Before 8:00 PM _____

8:00 - 8:59 _____

9:00 - 9:59 _____

10:00-10:59 _____

11:00 or later _____

As late as I want. _____

20. In a typical week, what is the latest you can stay out on FRIDAY or SATURDAY NIGHT ?

I am not allowed out

Before 8:00 PM _____

8:00 - 8:59 _____

9:00 - 9:59 _____

10:00 - 10:59 _____

11:00 or later _____

As late as I want. _____

21. How much do your parents try to KNOW…..

	Don't try	Try a little	Try a lot.
Where you go at night ?	_____	_____	_____
What you do with your free time ?	_____	_____	_____
Where you are most afternoons after school ?	_____	_____	_____

22.How much do your parents REALLY know……

	Don't know	Know a little	Know a lot
Where you go at night ?	_____	_____	_____
What you do with your free time ?	_____	_____	_____
Where are most afternoons after school ?	_____	_____	_____

PARENTING INVENTORY
(Mizo Version)

Background Demographic Sheet

1.Code No _____

2.Kum zat :_____

3.Sex(Mipa/Hmeichhia)_____

4.Unau zat _____Mipa _____ Hmeichhia _____

5.Birth order(upa ber atanga 1 a chhiar tanin,1,2,3,etc)_____

6.Chhungkaw member engzat nge ?_____

7.Chhungkaw mal ___ _Chhungkaw hrang hrang awm khawm
_____

8.Chhungkhat pa ber hnathawh
_____

9.Chhungkhat nu ber hnathawh
_____

10.School hming :_____

11.Khua _____

12.Eng sakhua nge ? _____Eng Kohhran nge _____

13.Lehkha zir thlen chin(Exam passed hnu hnung
ber)_____

14.Passed na Division _____Mark Pencentage_____

PARENTING STYLES SCALE (PSS)

A hnuaia zawhna te hi i nu leh pa emaw mi dang nangmah enkawltu ber emaw ten nangmah an enkawl dan che-ah i ngaihdan dik tak leh nia i hriat ang chiahin chhang la, Uluk taka i chhiar hnu-ah chauh chhang ang che.

Heng zawhna te hi nangmah leh midang ten harsatna an neih te kan puih theih nana siam ani a,I hming ziah a ngai lova,i nihna tuman an hre dawn lova,chuvangin dik nia i hriat ang chiahin huai takin i chhang dawn nia.

I chhanna te hi thuruk anga vawn anih dawn avangin i chhan dan midangin an hre tur ani lova,nang mah ngeiin i ngaihdan dik tak zawn-ah a hnuaia mi ang hian number i dah khat dawn nia.Chhanna pakhat chauh,zel a awm tur ani a,zawhna chhan kim vek bawk tur ani.

1- **PAWM THLAP** tih nan
2- **A THEN CHAUH PAWM** tih nan
3- **A THEN PAWM LO** tih nan
4- **PAWM LO TAWP** tih nan.

1 . Harsatna ka neihin min pui turin ka nu leh pa ka sawm thin._____

2 . Puitling tumah I hnial tur ani lo min ti thin._____

3. Thil engpawh ka theih tawka thaa ti turin min ti thin._____

4. Midang tih thinrim ai chuan in hnuk dawk mai rawh min ti thin._____

5. Mahni puala thil ngaihtuah chhuah ve tum turin min nawr thin._____

6. Result tha lo tak ka neih chuan rilru nuam lo takin min siam thin._____

7. Thil hriat thiam loh(Homework) ka neihin min pui thin._____

8. An ngaihdan chu a dika ka hnial hauh tur ani lo an ti thin._____

9. Thil ti tura min tih hian a chhan leh vang min hrilhfiah thin._____

10. An mahni ka hnial chang hian,i len hunah i hrethiam ve mai ang min ti thin_____

11. Ka result a that loh chuan nasa leh zuala zir turin min fuih thin._____

12. Ka tih duh te,keimah ngeiin ruahhmanna siam thin turin min ti thin.___

13. Eng ang mi nge thiana ka kawm thin an hre vek thin._____

14. An duh loh zawng ka tihin, inti-hlauhawmin,an nelawm loh hle thin.___

15. Hun remchang siamin min ti ti pui fo thin._____

16. Result tha lo ka neihin, inthiam lohna chang hre turin min hrilh thin.____

17. Hun hlimawm tak kan hmang ho fo thin._____

18. An duh loh zawng ka tih changing an bula awm an phal lo thin._____

A dik tih ber zawn ah tick mark thai tur.

19. School kal hun lain engtia rei nge zana i len chhuah an phal ?

8:00 PM hma lam _____
8:00- 8:59 PM in kar _____
9:00- 9:59 PM in kar _____
10:00-10:59PM in kar _____
11:00 PM hnu lam _____
Duh hun hun-a chhuah an phal _____

20. School chawlh hun lain engtia rei nge zanah I len chhuah an phal thin ?

8:00 PM hma lam _____
8:00- 8:59 PM in kar _____
9:00- 9:59 PM in kar _____
10:00-10:59PM in kar _____
11:00 hnu lam _____
Duh hun huna chhuah an phal _____

21.I nu leh i pa ten engchen nge i awm dan-ah hriat an tum thin ?

	Hriat tum lo	Hriat tum zeuh zeuh	Hriat vek tum
Zana i len na	_____	_____	_____
Hunawlah enge i tih	_____	_____	_____
School ban hnua i awmna	_____	_____	_____

22. I nu leh i pa ten i nundan ah eng chin chiah nge thu dik tak an hriat ?

	Hre miah lo	Hre ve nual	Hre vek.
Zana i kal na chin	_____	_____	_____
Hunawla i thil tih thin	_____	_____	_____
School ban hnua i awmna	_____	_____	_____

R E C O R D I N G O F R E S U L T S

PARENTAL INVOLVEMENT

Item Nos. Answers from complete items.

1. Count on him to help me out..

3. Pushes me to be my best..

5. Pushes me to think independently..

7. Provides help with school work..

9. When he wants me to do something,he explains why..

11. Poor grade-- encourages me to try hard..

13. Really know who friends are.

15. My parents spend time just talking to me…

17. Our family does fun things together.

Recode 1.,3.,5.,7.,9.,11.,13.,15.,17.,(1=4) (2=3) (3=2) (4=1) into R1, R3, R5, R7, R9, R11, R13, R15, R17.

Compute INVOLV=mean .6(R1 R3 R5 R7 R9 R11 R13 R15 R17)

Note: This scale is only valid if the subject has answeres 70 % of the items in the scale.(70% of 9 items is .6)

PSYCHOLOGICAL AUTONOMY GRANTING.

Items Nos Answers from the Complete items.

2. Shouldn't argue with adults.

4. Give into arguments rather than make people angry..

6. Poor grade..make my life miserale..

8. Their ideas are unquestioningly correct.

10. Know better when you grow up..

12. Let me make my own plans for things that I want to do.

14. Act cold and unfriendly if I do something they don't like.

16. Poor grade…make me feel guilty..

18. Won't let me do things with them if I do something they don't like.

Recode 12. (1=4) (2=3) (3=2) (4=1) into R12

Compute Psy-Auto=Mean .6(2 4 6 8 10 R12 14 16 18)

Note: This scale is only valid if he subject has answered 70 % of the items in the scale(70 % of 9 is .6)

BEHAVIORAL CONTROL

See from Complete items 19 20 21A 21B 21C 22A 22B 22C

Recode 19(1=7) (2=6) (3=5) (4=4) (5=3) (6=2) (7=1) into R19

Recode 20 (1=9) (2=8) (3=7) (4=6) (5=5) (6=4) (7=3) (8=2) (9=1) into R20

Compute WR19=R19/7
Compute WR20=R20/9
Compute W21A=21A/3
Compute W21B=21B/3
Compute W21C=21C/3
Compute W22A=22A/3
Compute W22B=22B/3
Compute W22C=22C/3

Compute Behavioral Control =mean .6(WR19, WR20, W21A,W21B.W21C,W22A,W22B,W22C)

PARENTING STYLE

Three factors: **Acceptance/involvement, Strictness supervision, and Psychological autonomy.**

Our previous work indicates that the psychological autonomy dimension appears to be important in defining authoritativeness but less so in differentiating among authoritative, authoritarian, indulgent, and neglectful families. Accordingly, scores on the acceptance/involvement and strictness supervision dimensions are used to assign families to one of four parenting categories. These categories are defined by trichotomizing the sample on each dimension and examining the two variables simultaneously. ***Authoritative families*** are those who score in the upper tertiles on both acceptance/involvement and strictness/supervision, whereas ***neglectful families*** are in the lowest tertiles on both variables. ***Indulgent families*** are in the highest tertile on involvement but in the lowest tertile on strictness. Families who score in the middle tertile on either of the dimensions are excluded from the analysis, in order to ensure that the four groups of families represent distinct categories.

Appendix – IV

(1) - (27)

RSPM Score Sheet

Sl. No.	A	B	C	D	E	G.Total
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
Total						

Time of Start : _____ *Time of Test ended :* _____

Code No. of Participant : _____

Signature of Investigator

DEPARTMENT OF PSYCHOLOGY
MIZORAM UNIVERSITY
MIZORAM : AIZAWL
Tanhril, Aizawl – 796009, Mizoram

Post Box No.190
Gram : MZU
Phone: 2331605/
2331616
Fax: 2331605

PARTICULARS OF THE CANDIDATE

Name of the Candidate	:	Mr. H. Lalthlangliana
Degree	:	Doctor of Philosophy
Department	:	Psychology
Title of Dissertation	:	"A Study of the Effects of Age, Gender, Ecology on Parenting, Behavioural Problems and Cognition among Mizo Adolescents"
Date of Admission	:	13. 2. 2005.
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1. BPGS	:	26. 4. 2005.
2. School Board	:	18.8.2005.
Registration No. & Date	:	MZU/Ph.D/49/30.8.2005. (Vide No. MZU /Acad-3/1/06/18531-42. Dated 9th Jan, 2006.
3. Academic Council	:	18. 8.2005.
Extension (If any)	:	Nil

(C.LALFAMKIMA VARTE)

Head
Department of Psychology