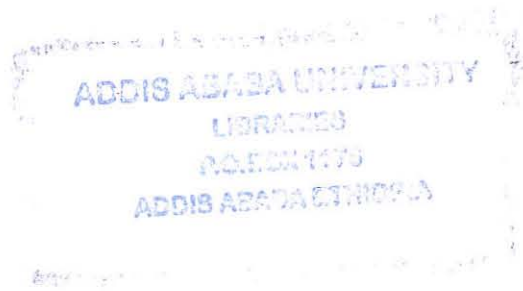


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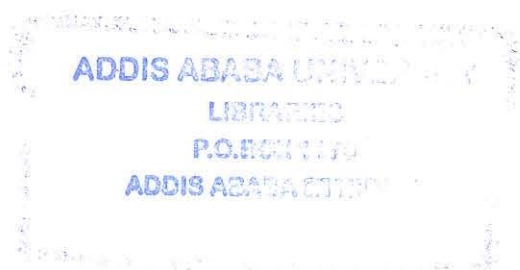


**The Contribution of Perceived Parent-Adolescent Relationships to
Autonomy Development and Psychosocial Adjustment of
Adolescents**

By: - Martha Medhanie

June, 2005

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SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF PSYCHOLOGY**

By: - Martha Medhanie

**A Thesis Submitted to the School of Graduate Studies of Addis Ababa
University in Partial Fulfillment of the Requirements for the Degree
of Master of Arts in Developmental Psychology**

June, 2005

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Approval of Board of Examiners



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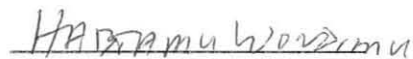
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Abstract

This study examined the contribution of perceived parental warmth, monitoring, and strictness to the development of adolescents' attitudinal, functional, and emotional autonomy and its direct effect on the psychosocial adjustment of adolescents. The study also examined the role that adolescents' autonomy play in mediating the relationship between perceived parent-adolescent relationships and adolescents' psychosocial adjustment.

The study was conducted in a sample of 400 randomly selected grades 9, 10, 11, 12 students. Survey scales were employed to collect the data. Series of multiple regression analyses and path model coefficient depicted that perceived parental warmth and monitoring were positive predictors of adolescents' attitudinal, emotional, and functional autonomy. Furthermore, perceived parental warmth and monitoring were also positive predictors of adolescents' self-reliance and negative predictors of adolescents' distress and problem behavior. Perceived parental strictness was negatively related and predicted adolescents' self-reliance and also positively predicted adolescents' distress and problem behavior.

The path analysis results indicated that perceived parental warmth, monitoring and strictness have significant mediated effect on adolescents' distress and self-reliance via adolescents' emotional, functional, and attitudinal autonomy. However, perceived parent-adolescent relationships have no mediated effect on adolescents' problem behavior via adolescents' autonomy development.

Discussion and conclusions are made on the basis of these results. Finally, some suggestions are indicated for achievable interventions and further study.

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CHAPTER ONE

INTRODUCTION

1.1. Background of the Problem

Based on the various developmental processes that appear at each age level, developmental psychologists classified human development into four different periods. These are childhood, adolescence, adulthood, and old age. Each period has its unique effect on physical, cognitive, and socio-emotional development of an individual (Hurlock, 1980; Santrock, 1999).

Adolescence is a period of human development, which is characterized by rapid and significant changes in physical development and cognitive abilities (Santrock, 1999). The physical changes are characterized by the development of primary sexual characteristics (reproductive organs like ovaries, penis, and testes) and secondary sexual characteristics (e.g. breasts, facial and bodily hair, and an adult body shape). The cognitive changes are characterized by the development of abstract thinking ability (Fabes and Martin, 2000) which allows adolescents to think logically about diverse social situations. That is, instead of relying on their perspectives only, they start to compare and contrast alternative views of other persons using their abstract thinking ability.

Hormonal changes have direct and indirect consequence on adolescents' multifaceted development (Fabes and Martin, 2000). The direct effects are seen on changes on the physical appearance of adolescents that make them look like adults. Moreover, hormones have indirect effect on the behavior of adolescents in that the physical maturity of adolescents influences the expectation of others because they appear older than other children. The physical and sexual

maturational changes of puberty have universality in their characteristics (Santrock, 1999). However, the traditional beliefs about the physical and psychological characteristics of adolescents affect the judgment of others as well as adolescents' self-evaluation (Fabes and Martin, 2000). As a result, there will be changes on how others treat adolescents and how adolescents feel about themselves. For instance, adolescents take more responsibilities than when they were children and this can be observed when they choose an intimate friend, career, etc. Although adolescents are neither children nor adults, depending on the exposure in wider social events, they will develop confidence to reach on the ladder of adulthood.

Therefore, adolescence introduces a period of significant transition in family and social role expectations. But the expectations are based on the culture of the society. For example, in Hopi Indian culture adolescent girls are expected to marry, though they are restricted to choose their mate, whereas in the U.S. culture adolescents are expected to choose their own mate and take other responsibilities that facilitate their progress to independence (Fabes and Martin, 2000).

Furthermore, findings from studies of puberty and parent-adolescent relationships indicate that the onset of puberty is often accompanied by increased conflict, diminished cohesiveness, and emotional distance between parents and adolescents (Conger, 1995; Dekovic, 1999; Fabes and Martin, 2000). Conflicts may arise due to variations in the perception that both parents and adolescents hold about their day to day activities. In other words, if adolescents try to exercise more freedom than their parents allow or if parents apply firm control on adolescents, there will be conflict between parents and adolescents.

In general, the changes in biological, cognitive, and psychosocial domains are affected, both directly and indirectly, by important contexts, including family, school, and peers (Rutter, 1995). Such contexts facilitate or inhibit development depending on the opportunity they provide for adolescents to become accustomed with the changes on each domain which have important

implications for their interpersonal and personal adjustment. Based on the biological, cognitive, and psychosocial development, changes in conceptions of self-esteem, identity, and autonomy occur over the adolescent decade (Rutter, 1995; Fabes and Martin, 2000). Generally, these changes are aroused by adolescents' physical appearance, more advanced skills in abstract thinking ability and more diverse social environments which encourage them to think about themselves in more complex ways as they take new roles within their families, peer groups, schools, workplaces, and communities.

Erickson (cited in Juang et al., 1999) pointed out that throughout the lifespan, individuals deal with the issue of autonomy. However, autonomy is especially salient during adolescence as expectations and opportunities for independence widen at this time. For instance, the pubertal maturation and the expanding cognitive capacity contributes to being viewed as more like grown ups than children (Conger, 1999). Thus adolescents take more responsibility than when they were children. Moreover, the increased hypothetical-deductive and reflective abstract thinking abilities promote autonomy by enhancing adolescents' ability to evaluate their personal thought process and question what they and others believe in (Fabes and Martin, 2000). These cognitive abilities help adolescents to consider diversified views of a specific event via assessing the possible options and reconsidering the previously accepted views.

Autonomy is one of the most important tasks of all adolescents that help them to manage their own lives and make positive and healthy choices (Dekovic, 1999). An autonomous adolescent can successfully achieve adulthood through the support of parents and other individuals (e.g. teachers and peers). Studies also support the link between autonomy and parent-adolescent relationships. For example, Baumrind (cited in Brooks, 1994) conducted a longitudinal research and found that how parents relate to their children during adolescence is

more important in determining the development of autonomy, competency, and self-esteem of adolescents than earlier parenting techniques.

Similarly, Steinberg and Dornbusch (cited in Dekovic, 1999) suggested that the most beneficial parent-adolescent relationship is characterized by a higher degree of warmth and acceptance, high degree of granting psychological autonomy and supervision. It was further noted that adolescents who thought their parents exercised too much control and adolescents who thought their parents permitted too much freedom are more likely to engage in deviant behavior with their peers (Dekovic, 1999; Santrock, 1999). In other words, how adolescents perceive their relationship with their parents affect adolescents' autonomy development in a way that, if adolescents perceive higher parental control in their relationship with their parents, their opportunity to experience the wider social environment will be limited. As a result, adolescents may lack self-confidence to make decisions independent of their parents. On the other hand, if adolescents perceive excessive freedom in their relationship with their parents, they may be prone to peer-conformity since they lack guidance from parents on how to be a self-reliant person. As a result, Santrock and Dekovic suggested that for successful development of adolescent autonomy, parents should give freedom for their adolescents while setting reasonable rules and standards to supervise their adolescents' activity.

Correspondingly, parent-adolescent relationship is found to have its effect on adolescents' autonomy development which are associated with severe externalizing and internalizing adolescent problems, such as delinquency, running away from home (Adams, 1992), low self-esteem and depression (Dekovic, 1999). Therefore, perceived parent-adolescent relationship has an impact on how effectively adolescents develop autonomy which in turn helps them to reach adulthood in a well adjusted psychosocial maturity.

Although studies are conducted in different parts of the world in relation to parent-adolescent relationships, they have focused on familial origin of psychosocial adjustment. There are no sufficient literatures which can be cited in the Ethiopian culture that show the clear picture of these relationships (Deme, 1997). Moreover, research about the developmental characteristics of this period is little compared to the complexity of the cultural expectations and other ecological factors. Renner (1989) and Deme (1997) suggested that the Ethiopian youth population is the most neglected and misunderstood age level that faces problems like stress, strain, identity problems, externalized and internalized problem behaviors. However, causes and contributive factors for this entire problem are yet unexplored.

Moreover, in Ethiopia, studies show that parent-adolescent relationship is dominated by parental strictness (Levine, 1965; Cox, 1967; Ringness and Gander, 1974; Habtamu, 1979, 1997). On the contrary, there are also studies conducted on 'Bahir Dar', 'Welayta', 'Keffecho', and 'Mekelle' high school students that found warm and nurturing parent-adolescent relationships as dominant practice (Abesha, 1997; Berhanu, 1996; Markos, 1996). However, there is no local research, to my knowledge, on adolescent autonomy development in relation to perceived parent-adolescent relationships. Moreover, the influences of parent-adolescent relationships on the psychosocial adjustment of adolescents need thorough study by taking into account the mediating variable of adolescents' autonomy.

Most research, in other countries, on adolescent autonomy has focused on emotional autonomy, while cognitive and regulatory aspects of autonomy received less attention. Furthermore, empirical studies on the relationship between emotional autonomy and adolescent adjustment reported inconsistent results. As a result, the investigator will try to see the components of autonomy development in adolescence by studying the contribution of perceived

parent-adolescent relationships to it and the consequence of autonomy development on the psychosocial adjustment of adolescents.

1.2. General Statement of the Problem

As a transitional period in children's development, early adolescence represents a time of significant changes in children's relationship with both peers and their parents. A number of studies have determined that adolescents' adjustment reflects the quality of relationship between them and their parents (Eccles et al., 1993; Dekovic, 1999; Virgo et al., 2002). These studies suggested that parent-adolescent relationships which have been characterized by warmth, nurturance, and acceptance will have higher quality of peer relationship and more positive emotional adjustment.

However, how adolescents perceive their relationship with their parents have an influence on how effectively they regulate their behavior. Adolescents' symbolic interpretation of their relationship with their parents is described as having an influence on how they consider their ability to face challenges around them and to evaluate different options in their life. For instance, if parents are involved in their adolescents' lives with regard to day to day activities and give freedom to experience social events with adequate supervision, adolescents may perceive their parents as a secure base to distinguish different approaches to a specific problem and can confidently decide on the effective one (Virgo et al., 2002).

In Ethiopian culture, parental strictness and control are dominant features of parent-adolescent relationships (Habtamu, 1995) which are considered as inhibiting for the development of autonomy during adolescence. However, we could not be sure whether parental strictness and

control inhibit or facilitate effective decision-making ability and self-reliance of adolescents in our cultural context for there is no empirical study on this issue.

Therefore, to facilitate the development of autonomy for adolescents, investigation has to be made on the characteristics of perceived parent-adolescent relationships that could facilitate or hamper successful development of adolescents' autonomy, which are highly associated with psychosocial adjustment of adolescents. Furthermore, this study is designed to give basic information on how psychosocial problems may occur during adolescence by specifically considering different components of autonomy.

1.3. Purpose of the Research

Santrock (1999) pointed out that achieving a mature and healthy sense of autonomy is one of the most important developmental tasks of adolescents that keep them to achieve maturity efficiently. Hence, to acquire these abilities, appropriate adult reaction to the adolescents' desire for independence is required. It has been proposed that negative consequences will ensue if parents are unable to adjust their parenting style to accommodate adolescents' need for more autonomy, particularly in terms of perceived parent-adolescent relationship quality (Eccles et al., 1993).

Generally, the study examines how perceived parent-adolescent relationship contexts facilitate or hamper adolescents' autonomy development and how psychosocial adjustment of adolescents be affected by both perceived parent-adolescent relationships and adolescents' autonomy development.

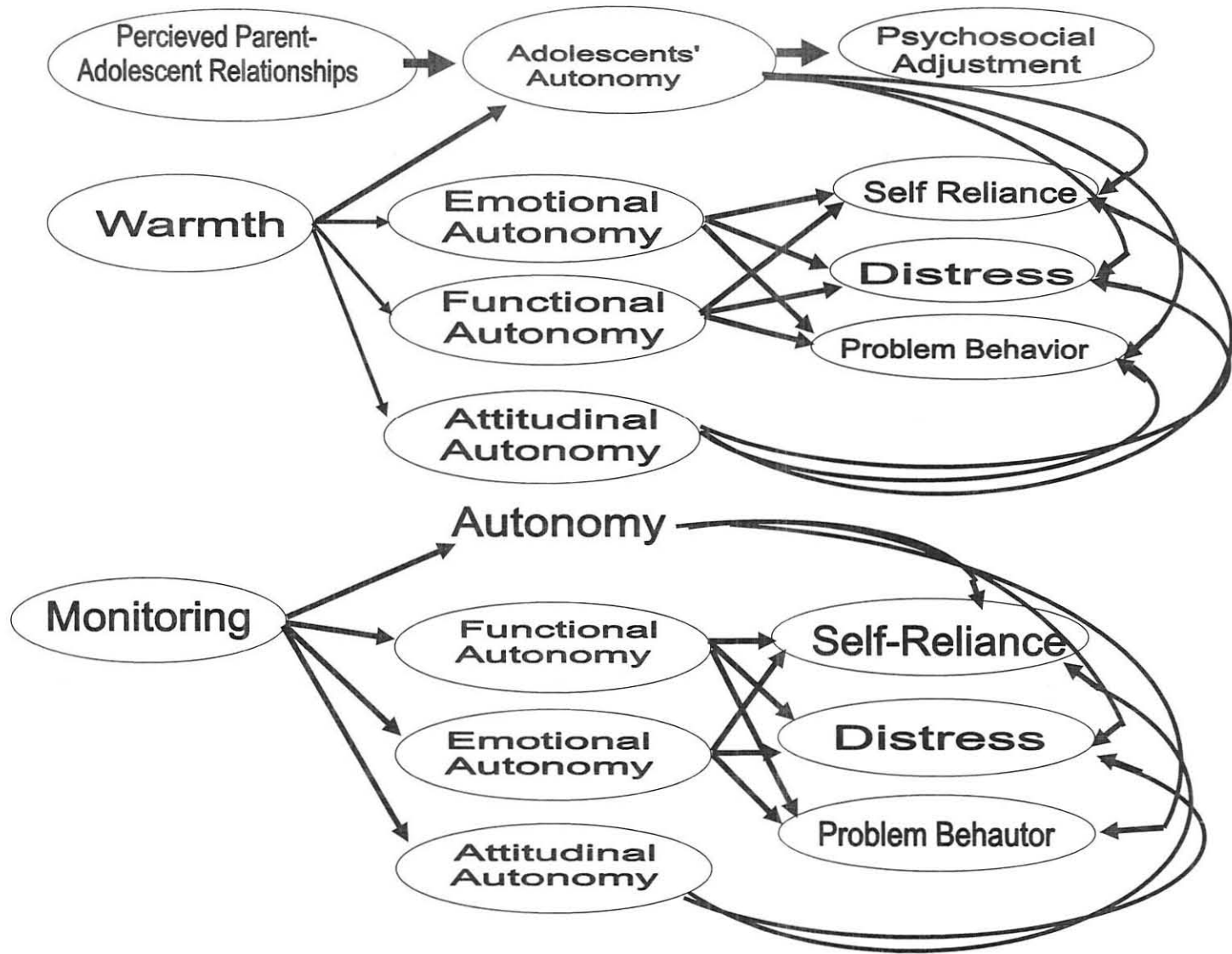
Specifically, the objectives of the study are:

- To investigate to what extent adolescents perceive their relationship with their parents as warm, monitoring, and strict and to what extent they develop autonomy and psychosocial adjustment.
- To investigate how adolescents' perception of relationship with their parents relate to the development of each component of adolescent autonomy.
- To examine gender difference on perceived parent adolescent relationships, on the development of each component of autonomy and psychosocial adjustment of adolescents.
- To identify psychosocial outcomes on each dimensions of perceived parent-adolescent relationships.
- To identify psychosocial outcomes on each component of adolescent autonomy development.
- To investigate the indirect effect of adolescents' autonomy development on the psychosocial adjustment of adolescents.

The following hypotheses were formulated based on the model below (see on page 10 and 11).

1. Most respondents show higher perceived parental strictness, emotional autonomy and adolescent distress.
2. Perceived parental warmth and monitoring are related positively with development of emotional, attitudinal, and functional autonomy of adolescents. On the contrary, perceived parental strictness is negatively related with development of emotional, attitudinal, and functional autonomy of adolescents.

3. Male and female adolescents differ significantly in their perceived parent-adolescent relationships, autonomy development and psychosocial adjustment.
4. The psychosocial outcomes of perceived parent-adolescent relationships vary significantly with each dimension.
5. The psychosocial outcomes of adolescents' autonomy development vary significantly with each components of autonomy.
6. Autonomy mediates the influence of perceived parent-adolescent relationships on psychosocial adjustment of adolescents.



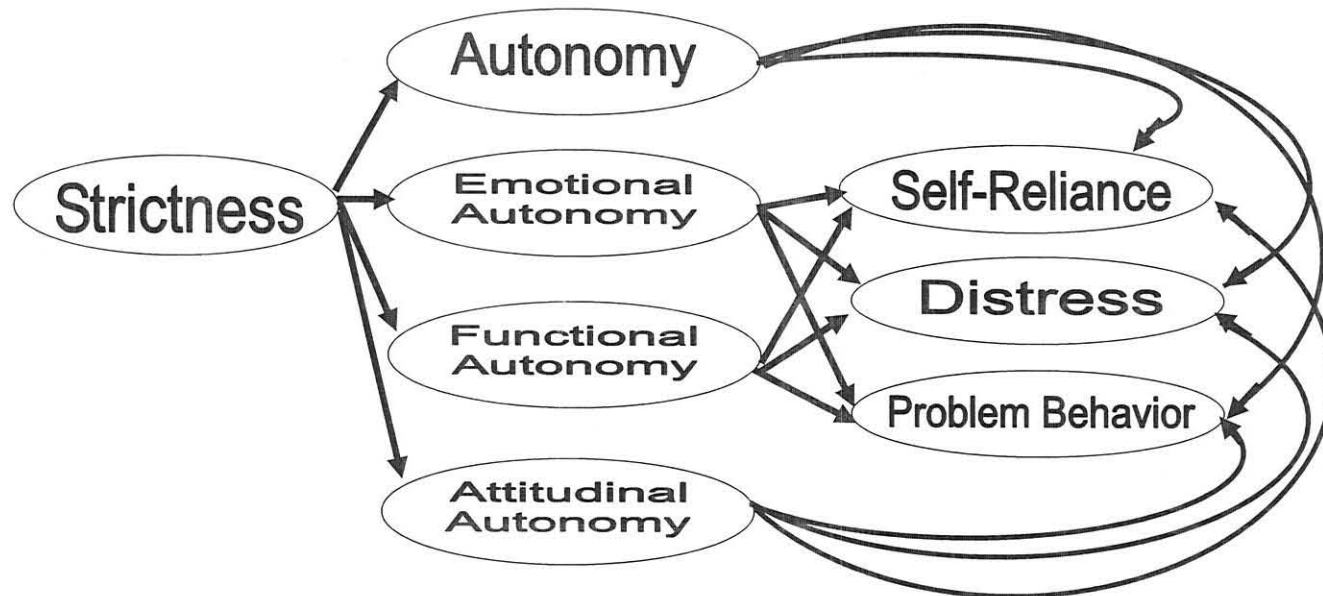


Figure1 Input diagram of causal relationships between perceived parent-adolescent relationships, adolescents' autonomy development and psychosocial adjustment.

1.4. Significance of the Study

The development of adolescent autonomy is a determining factor to successfully achieve adulthood. However, adolescents' progress towards becoming capable adults is considerably influenced by the approach in which their parents wield authority over them (Kimmel and Weiner, 1985). That is, imposing reasonable control with freedom on adolescents helps them to gain self-confidence, self-reliance, and make mature judgment. But if they are restricted, their capacity for autonomy will be undermined. As a result, it will be difficult for them to be responsible and self-reliant. Thus, they will be susceptible to conformity in deviant behaviors. Moreover, autonomy is influenced by the cultural expectation of the society in their child rearing practices (Rutter, 1995). There is cultural variation in the extent to which the society facilitates autonomy in children's behavior or mere obedience to authority figures. This study therefore attempts to provide:

1. Clear information on the importance of autonomy development for adolescents in Ethiopia.
2. Information for parents and concerned bodies on how to treat adolescents so that they may be able to get well adjusted to the changes in their physical, cognitive, and psychosocial characteristics.

1.5. Operational Definition of Terms

Perceived parent-adolescent relationship- considers a broad picture of parenting qualities as perceived by adolescents using Eccles and Fuligni's (1993) parenting scale that consists of three dimensions of parenting such as parental warmth, monitoring, and strictness. That is the feelings and attitudes formed and expressed by adolescents about how their parents

show involvement, monitoring and strictness behaviors in their relationship with adolescents themselves.

Parents- biological parents or other caregivers/ guardians of adolescents.

Autonomy development- refers to the capacity to give purposeful meaning to one's own life by defining goals, developing competence, and regulating one's own deeds. These could be measured through looking at three aspects of adolescent autonomy development such as, attitudinal (the ability to perceive one's goal through different opportunities), emotional (the perception in one's ability to pursue the defined goal confidently), and functional autonomy (the perception to regulate one's action by looking on different strategies) as measured by Noom's (1999) scale.

Psychosocial adjustment- refers to adjustment on adolescent's sense of control over one's life, their self-concept and the extent of adolescents' internalized and externalized problem behavior as measured by self-reliance subscale of psychosocial maturity inventory; adolescent depression mood was measured using Radlof's (1991) Epidemiologic Studies Depression Scale; and adolescent externalized behavior problem is measured using items adapted from Dimitrieva et al., (2004) and Deme (1997).

Adolescents – refer to school children at about the age of 13 to18.

1.6. Delimitation of the Study

It is important to note that the results of this study are delimited to adolescents' of 'Medhaniealen' and 'Minilik' highschool students. Moreover, the study emphasizes adolescents' perception rather than objective reality for it is believed that it plays a much more important role in adolescents' autonomy development. In addition, only certain psychosocial variables were

taken which are assumed to be related to adolescents' autonomy. Therefore, future investigation is needed that comprises both of objective and subjective reality; adolescents from different geographical areas; and a longitudinal study may need to be undertaken preferable to determine the generalizability of the results with other age groups.

CHAPTER TWO

LITERATURE REVIEW

2.1. An Overview of the Nature of Parent - Adolescent Relationships

Kelly (cited in Collins et al., 1997) defined relationships as enduring connections between two individuals, comprising of recurrent, highly inter-reliant action sequences across various settings and tasks. Collins and Repinski(1991) suggested that in relationships mutually dependent actions are innate products of complementary roles and shared histories that occur in due course in both familial and extra familial (e.g. friends) , relationships. For instance, in parent-child relationship emotional bonds occur naturally.

Relationships during childhood and adolescence are marked by both continuity and change (Collins et al., 1997). Familial relationships are often perceived as having the strongest influence on adolescent development and, during adolescence, family continues to be the most important source of influence and refuge. Steinberg (1993) noted that though some adolescents do experience uneasy family relationships, a large majority feel secure to their parents ,value their parents' views , believe that their parents love and care for them , and respect their parents as authority figures.

On the other hand, familial relationships during adolescence are characterized by changes. Collins and Russell (1991) reported that in most parent-adolescent relationships perception of reciprocity becomes more frequent and both parents and adolescents report more expressions of negative emotion, more instance of disagreement. In most situations these disagreements occur when parents view adolescent's choices as violating social customs. For instance, conflict of

basic interest, belief, and values between adolescents and parents exist on personal lifestyle, such as fashion of dress, hair style, tastes in music, and choice of holiday activities (Steinberg, 1993).

Moreover, during adolescence family change and adjustment occurs since parents face the task of shifting existing relationships to permit adolescents more participation in social relationships beyond the family (such as peers) and more autonomous decision making opportunities. This shows that familial and extra familial relationships have complementary functions for the healthy psychosocial development of adolescents. Furthermore, Collins and Laursen (cited in Fabes and Martin, 2000) found that although disagreement between parents and adolescents do occur, it encourages them to revise their expectations and renegotiate their relationship without fundamentally changing their feelings of connectedness to each other. Hence, relationship between parents and adolescents are marked by continuity with regard to connectedness and change or transformation with regard to wider social relationship and mutual influence occurs in their relationships.

2.1.1. Transformation in Perceived Parent –Adolescent Relationships

Silk et al., (2003) noted that during adolescence, there is a transformation in parent- child relationship. This is due to series of changes occurring during adolescence in a number of domains. These changes are pubertal, cognitive, and social changes which are described below.

- *Pubertal changes* - can affect adolescents' self- images, which in turn may affect their relations with their parents. Physical changes also go with changes in treatment by parents. Puberty seems to create emotional distance between parents and adolescents which result in an increase in negative interactions and a decrease in positive

- involvement. Connolly et al., (cited in Fabes and Martin, 2000) found that during adolescence hormonally triggered maturation brings about changes in an individual's self-concept and social relations. That is, the hormones cause physical changes in the secondary sexual characteristics, which are observable signs of physical maturity. These signs, then, influence how others care for the adolescents. For example, their parents' and peers' expectations for them change for they seem older than other children. Moreover, changes in how adolescents are treated influence how they feel about themselves.
- *Cognitive changes* - adolescent thinking is more abstract, imaginary, and relativistic and that this contributes to the development of idealistic view towards the world they live in (Silk et al., 2003). That is, idealistic thinking is thinking in ideal ways of what is right and wrong and adolescents start questioning discrepancies of the moral values of adults and moral behaviors using this thinking ability. Hence, by understanding the difference between acting and value in their idealistic thinking, they question their parents or other individuals. An important consequence of this change is that adolescents may perceive parental authority as subjective and arbitrary. Moreover, adolescents seek more autonomy from parents to establish their own identity, separate from parents. For instance, adolescents need freedom to make personal choices about friends, fashion, romantic partner, social activities, etc.
 - *Social changes* – Silk, et al., (2004), suggested that adolescents relatively spend more time with peers than families and there will be an increase in unsupervised free time. The context in peer relationships then provides emotional and instrumental support. That is intimacy and self-disclosure becomes an important part of adolescent friendship.

Collins and Repinski (1991) reported that the physical changes, new cognitive abilities and expanded social world of young adolescents serve as stimulants for parents to adjust how they relate to, discipline, and seek to guide them. Similarly, Deslandes and Royer (cited in Fabes and Martin, 2000) suggested that families make changes in existing relationships to let adolescents more independent decision making about lifestyle preferences. At the same time, parents should continue to supervise, protect, and give guidance to decrease the chance teens will develop problem behaviors.

Dmitieva et al., (2004) noted that numerous studies have shown that along with an increase in conflict, both adolescents and parents perceive their relationships as less closed, cohesive and engaged with one another than before. The evidence of the changes in parent – adolescent relationship during adolescence suggests that adolescence is a critical period of transformation in children’s relationship.

2.1.2. Theoretical Model of Parent –Adolescent Relationships

Santrock (1999) noted that daily conflicts that distinguish parent–adolescent relationships could serve a developmental function. That is, minor disputes and negotiations can smooth the progress of transitions of adolescents from depending on parents to becoming autonomous individuals. For instance, if parents recognize that adolescence is a long time journey to adulthood rather than an overnight accomplishment, it would be easier for adolescents to develop autonomy through conflict and negotiation.

There are various explanations regarding the characteristics of the relationship between parents and adolescents. Generally, they are classified into two major models that are well known in parent –adolescent relationship research and are discussed below.

2.1.2.1. Old Model of Parent –Adolescent Relationships

Blos (cited in Doyel and Moretti, 2000 and Santrock, 1999), who is a classical psychoanalyst, suggested that adolescence is characterized by detachment or disengagement and disruption as the normative developmental course of parent–adolescent relationship. This conception suggests that as adolescents mature they detach themselves from parents and progress into the world of autonomy apart from parents and in due course parent–adolescent conflict is intense and stressful throughout adolescence. Moreover, parents and peers are considered as isolated world of adolescents.

On the contrary, Doyel and Moretti (2000) suggested that even though adolescence involves a transition from a dependency relationship with parents to mutually reciprocal relationship with others (e.g. parents, peers, and intimate partners), this shift need not require adolescents to detach themselves from parents. Similarly, Steinberg (1993) noted that though parents and adolescents modify their relationship due to frequent conflicts, there is no evidence that the conflicts significantly diminish closeness between parents and adolescents. Based on these evidences and others, Doyel and Moretti pointed out factors that contribute to the common misconceptions in the relationship of parents and adolescents by considering adolescence as a time of moving toward detachment from parents.

1. Decrement in Time Spent with Parents

During adolescence, the amount of time that adolescents spend with their parents will decrease dramatically. Larson et al., (cited in Doyle and Moretti, 2000) found a drop in amount of time spent with family from 35% to 14% while comparing late childhood with adolescence. Frequently, parents attribute the shift in behavior of adolescents, i.e., the decrease in the amount

of time they spent with their parents, to increasing detachment or rejection of the family. This attribution contributes to the development of adolescent detachment perspectives.

2. Dominance of Dated Theories of Adolescence

The view that adolescents detach from parents has been propagated by old theories of adolescence that influenced the past several decades (such as Blos's and Freud's psychoanalytic view). These theories proposed that the pubertal maturational changes and diversified social roles put the adolescents in challenge. As a result, they concluded that the challenges motivate adolescents to detach or to create emotional distance from parents.

3. Confusion in the Concept of Detachment and Autonomy

Generally, past theories confused the concept of detachment and autonomy. Steinberg and Silverberg (cited in Beyers et al., 2003) define autonomy based on psychoanalytic and neo-analytic thinking as detachment that necessarily requires disengagement from parents, both emotionally and physically, compiled with negative feelings concerning the importance of the parent-child relationship and the significance of parents as a source of guidance and emotional comfort.

In contrast, currently, autonomy is defined as self-regulation (Russell and Bakken, 2002). Autonomy with parents is the sense that an adolescent has the free will to think, feel, to express beliefs and needs, to discuss with parents and other authority figures, and the opportunity to assume reasonable control over important decisions in his or her life.

All in all, the combination of these three factors contributed to the development of a misconception in the parent-adolescent relationships. Thus, currently, this conception is changed to a new model that relies on Bowlby's (cited in Doyle and Moretti, 2000) attachment theory as briefly described below.

2.1.2.2. New Model of Parent –Adolescent Relationships

Larson et al., (cited in Doyel and Moretti, 2000) proposed a new model based on attachment theory. The recent model emphasizes the significance of connectedness to parental figures for adjustment during the adolescent years, regardless of decreases in mutual activities and interactions. Meaning, in this model, parents serve as important attachment figures and support systems as adolescents explore a wider, more complex social world.

The new model also emphasizes that the majority of family conflict is moderate rather than severe. Moreover, daily negotiation and minor disputes are normal and can serve as a developmental function of helping the adolescent to make the transition from childhood dependency to adult independency.

2.2. Dimensions of Perceived Parent –Adolescent Relationships

In parent –adolescent relationships there are great variations on the emphasis given to aspects of parent- adolescent relationships. For example, adolescents could perceive their parents as loving or rejecting; calm or anxious; involved or uninvolved; rigid or flexible; controlling or autonomous. These qualities of parent –adolescent relationships have their own unique influence on the development of adolescents. Some researchers such as Elder, Baumrind, Benjamin, Maccoby & Martin, Schaefer, Wiggins (cited in Conger, 1995); Eccles and Fulgini (1993); and Dmitrieva et al., (2004) have given particular attention to two major dimensions: love-hostility and autonomy-control.

However, in this research the emphasis on the dimensions of parent –adolescent relationship will be based on the importance of the dimension on the psychosocial development of adolescents, particularly on autonomy development.

2.2.1. Perceived Parental Warmth Dimension

Rohner et al., (2004) suggested that both parental acceptance and rejection form the warmth dimension of parenting. Parental warmth dimension is characterized as an emotional support of parents or major caregivers to children. Therefore, the warmth dimension refers to the quality of the affection bond between parents and their children that could be expressed through physical and verbal behaviors of parents.

Parental acceptances consist of adolescents' experience of warmth, affection, care, comfort, concern, nurturance, support, or simply love from their parents and other caregivers (Conger, 1995). Kagan (cited in Rohner et al., 2004) considered parental acceptance as a belief held by the child and not as a specific set of actions by parents since in effect, much of parental acceptance is symbolic. In other words, adolescents feel acceptance based on their interpretation of what they observed in their relationship with their parents. To understand why acceptance has consistent effects on children and adults, one must understand its symbolic nature in the context of culturally based interpretation of love related behaviors (Rohner et al., 2004). For instance, though parents everywhere may express, to some degree, acceptance, the way they do it is highly variable and depends on cultural or sometimes idiosyncratic meanings. That is, parents may praise their children, but the way they express it might have different meaning or no meaning based on the various socio-cultural settings.

Rohner et al., (2004) found that adolescents and adults who perceive their relationship with parents as rejection appear to be involved in drug and alcohol abuse and also to be depressed. Rohner et al., also found that perceived parental acceptance by itself is universally a powerful prediction of psychological and behavioral adjustment on children and adults. The evidence in the finding emphasizes that individuals everywhere appear to use a common meaning structure of perception on parental acceptance around warmth or affection.

Therefore, concepts of perceived acceptance are defined in terms of interpretation that children and adults make of major caregivers' behaviors. This allows individuals to make interpretations of parenting in the course of their own culture and personal lenses, and in view of that, it avoids the likelihood of making misinterpretation in the meanings of caregivers' behaviors.

2.2.2. Perceived Parental Monitoring Dimension

Parental monitoring refers to the way parents supervise their adolescents' activities, schedules, peer associations, and physical whereabouts (Fabes and Martin, 2000). For instance, parents may ask questions like "Where are you going?" "When will you be home?" "Who will you be with?" During adolescence parental knowledge of adolescent's activities is important because adolescents face new physical, cognitive, and social characteristics that they did not experience in their childhood. Thus, these changes (e.g. transition to high school can be associated with feelings of incompetence, extended peer relationship can pressure adolescents to conform to peer expectation like delinquent activities) in adolescents' life need proper guidance from adults, such as parents and teachers.

Parental monitoring can also include parental disapproval or sanction of adolescent misconduct which is related to lower involvement in problem behavior.

Eccles and Fuligni (1993) pointed out that effective monitoring involves parents to maintain clear expectations about curfews, appropriate activities, acceptable peers, and places where they can and can not go so that it provides adolescents' perception of their parents as involved in their lives. Ambert (cited in Fabes and Martin, 2000) found that adolescents who perceive their parents as a failure in supervising their adolescents' activity could be more prone to be drawn in delinquent acts, antisocial behavior, early sexuality, and drug use. Evidences reported here confirm that perceived parental monitoring by itself could be a powerful predictor of psychosocial adjustment.

2.2.3. Perceived Parental Strictness Dimension

Parental strictness occurs when parents influence their adolescents by expecting mere obedience or acceptance of their value, belief, and viewpoint (Eccles and Fuligni, 1993). Even though adolescents disagree with the idea forwarded by their parents, they perceive that their parents want them to follow it strictly. Hence, it may produce hostile feelings toward their parents. In addition, adolescents may feel incompetent to make decisions independently.

However, an important way of influencing adolescents is suggested to be through induction or using logical reasoning and persuade them to accept parental viewpoint (Fabes and Martin, 2000). This technique is effective during adolescence because adolescents have increased ability to think abstractly and to consider different alternatives on a specific issue. Therefore, for effective psychosocial adjustment and autonomy development it is important to give decision-making opportunity for adolescents through induction.

Peterson and Haan (cited in Fabes and Martin, 2000) suggested that parents should use induction method to influence adolescents. As a result, adolescents can understand “why rules are necessary, why their misbehavior is unacceptable, how their behavior affect others, how their behavior might become more acceptable, and how they might make amends for any harm they caused”.

2.3. Definition and Conceptualization of Adolescent Autonomy

Havighurst (cited in Noom et al., 2001) noted that several developmental tasks can distinguish adolescents from earlier childhood stages. Adolescents are expected to pass through healthy psychosocial functioning and reach adulthood successfully. One of the expected transitional tasks, from adolescence to adulthood, is the development of autonomy. Many different approaches were put forth so as to conceptualize adolescent autonomy. These are: considering autonomy as separation or detachment, individuation, psychosocial maturity, self-regulation, self-control, self-efficacy, self-determination, decision-making, and independence. This diversity in concepts indicate that adolescents' autonomy could be seen from different directions of psychosocial functioning of an individual that shows the multidimensional aspect of adolescents' psychosocial development. Therefore, Noom et al., (2001) developed a theoretical model to integrate different concepts of adolescents' autonomy and to reach on an acceptable theory to define adolescents' autonomy.

2.3.1. Noom`s Theoretical Model of the Dimensions of Adolescent Autonomy

Noom et al., (2001) tried to integrate the different theoretical perspectives of adolescent autonomy development so that it will be easier to generally conceptualize autonomy by having commonly acceptable dimensions. To search out for a general dimension of the concept of adolescent autonomy, Noom categorized the diversified concepts into three theoretical approaches.

The first approach is known as psychodynamic approach. In this approach autonomy is conceptualized as “the relational changes between parents and adolescents” (p. 578). It emphasizes the gradual transformation of imbalanced relationship between parent and child into a more egalitarian relationship. That is equality is expressed through intimacy and respect between parents and adolescents in their mutual and cooperative relationship.

The second approach is cognitive and it which emphasizes the importance of making decision and the perception of control by adolescents. Perceptions in the form of attitude and decisions in the form of behavior can be distinguished through the adolescent’s ability to list alternatives, making choices, and being aware of one’s responsibility in different situations.

The third is an eclectic perspective which integrates the relational and cognitive aspects of adolescent autonomy development. This approach emphasizes the adolescents’ ability to abstractly and critically think on conditions that they can independently decide on how to act and what to do. This ability in turn transforms the type of relationship they have with their parents into mutual relationship.

Therefore, based on an extensive literature review, Noom proposed a cognitive, an affective, and behavioral dimension of adolescent autonomy and defined autonomy as

adolescents' ability to define their own goal, to plan competently, and to regulate their action as they planned earlier. Thus, adolescents' autonomy is classified into attitudinal, functional, and emotional autonomy which is described below.

1. *Attitudinal Autonomy Dimension*

Attitudinal autonomy refers to the cognitive process of adolescents' perception of how to deal with their lives through the process of evaluating possibilities and desires, developing personal values, and defining personal goals. Adolescents can perceive their goals when they are provided with different opportunities to choose and by their abstract thinking ability they can define their goal by relating the situations with their desires. Therefore, Noom (1999) defined attitudinal autonomy as "the ability to specify several options, to make a decision, and to define a goal" (P.578).

Related with this dimension Steinberg (1993) has identified a dimension known as value autonomy. Accordingly, value autonomy means adolescents' ability to make judgments and choice with regard to their personal value systems. In other words, adolescents can consider their value systems and can come up with conclusions from their own individually held principles rather than simply accepting the values with their parents, friends or other person's expectations. However, both dimensions have difference on the emphasis they give. That is, in attitudinal autonomy the emphasis is on adolescents' ability to see alternatives and define their own goals, but value autonomy deals with judgment on personal beliefs with regard to spirituality, politics, and morals.

The important concept in attitudinal autonomy is the adolescents' ability to choose and define one goal from different alternatives using their thinking ability to evaluate the options. This is more related with "Bandura's concept of self-efficacy; Hoffman's concept of attitudinal

independence; Dworkin's concept of reflection upon preferences, wishes, and desires; Frank's concept of decision-making; and Allen's concept of personal goals (cited in Noom et al., 2001).

2. *Emotional Autonomy Dimension*

This dimension involves the perception of emotional independence from parents and peers through self-confidence and individuality which has both an affectional and relational meaning. Here adolescents can be able to see other person's goals but they maintain a feeling of confidence in their own goal and choice. It is defined as "a feeling of confidence in one's own choices and goals" (Noom et al., 2001, P.579). This concept of emotional autonomy has resemblance with the definition of Douvan and Gold (1966); Hoffman's concept of emotional independence; Steinberg's and Silverberg's concept of resistance to peer pressure; and Flammer's concept of social independence (cited in Noom et al., 2001).

However, Steinberg's concept of emotional autonomy (Ryan and Lynch, 1989) differs in a way that it refers to radical detachment from parental relationships and they become more deeply involved in relationships with friends to get emotional support. Moreover, this concept of emotional autonomy has a negative developmental outcome for adolescents which are why it functions as a maladaptive behavior for adolescents.

All in all, Noom's concept of emotional autonomy shows an adaptive behavioral development of adolescents as their effective psychosocial developmental process. This could be seen in relation to reaching adulthood stage with well adjusted psychosocial development, like autonomy.

3. *Functional Autonomy Dimension*

This dimension involves regulatory processes such as perception of competence and the perception of control. The perception of competence refers to the accessibility of diverse strategies to achieve a goal. On the other hand, the perception of control refers to the aptitude to

select a specific approach, which is effective enough to succeed. It is defined as “the perception of strategies by means of self regulation and control” (Noom et al., 2001, P.579). Therefore, this dimension deals with the ability to recognize alternative methods to accomplish one’s goal and as a motivating power, perception of responsibility (Noom et al., 2001) can help the adolescents to behave accordingly.

Moreover, Hoffman’s concept of functional independence; Markus’s and Warf’s concept of cognitive preparation for action; Frank’s concept of independence; and Flammer’s concept of personal control(cited in Noom et al., 2001) are all well captured by the concept of functional autonomy. Thus, in this dimension the stress is on independently making a decision rather than on their specific abilities to consider alternative solutions and regulate their behavior.

2.4. Controversies in Conceptualizing Adolescence

Autonomy Development

A major developmental process that takes place during adolescence has been called adolescent autonomy (Ryan and Lynch, 1989; Conger, 1999; Noom et al., 1999; Allen et al., 2002; Marsh et al., 2003). Autonomy is the process in which adolescents endeavor to develop a sense of self that is separate from parents while concurrently remaining connected to parents as source of emotional support, empathy, and practical advice. This process has been characterized in terms of autonomy, independence, and detachment from family members by different researchers.

2.4.1. Autonomy as Separation or Detachment

Based on psychoanalytic and neo-analytic thinking, autonomy is defined as separation from parents (Beyers et al., 2003). It is characterized by interpersonal distance between the adolescent and his or her parents, as perceived by the adolescent. Hence, during adolescence discontinuity is assumed with respect to parent –adolescent relationships.

In classical psychoanalytic thinking such as Freud's (cited in Beyers and Goossens, 1999) adolescents' increased distance from parents in its most acute form, is seen as drastic and conflictual detachment or disengagement from earlier childish representations of parents. Hence, autonomy or separation is viewed as the opposite of or move away from connectedness or relatedness to parents.

Neo-analytic theorist, Blos (cited in Steinberg, 1993; Beyers et al., 2003) modified psychoanalytic theory by de-emphasizing the storm and stress of adolescence, and rather concentrated on healthy and calm process of separation from parents during adolescence and called this process adolescent individuation.

Based on this view, Steinberg and Silverberg (cited in Ryan and Lynch, 1989) developed an emotional autonomy scale as a measure of adolescent autonomy from parents. Although the emotional autonomy scale (EAS) has been used in a diversity of studies during the past decade, a number of important controversies about the scale have arisen which resulted in a debate known as a "detachment debate" (Schmitz and Baer, 2001). This stems from the explanation of EAS as either a form of autonomy or detrimental detachment. At this juncture, emotional distancing from parents by adolescents is a vital issue of argument as to whether it leads to healthy self-reliance or poor developmental outcomes.

Ryan and Lynch (1989) and Schmitz and Baer (2001) argue that the EAS measures emotional detachment from parents and is not an indicator of self-regulation and self-reliance as originally operationalized by Steinberg and Silverberg. The EAS tabs a more drastic form of adolescents' estrangement from parents, because higher score in the scale is associated with all kinds of negative developmental processes (Beyers and Goossens, 1999) and with lower level of parental support in particular (Ryan and Lynch, 1989). Ryan and Lynch further reported that higher EAS score that young adults express in the study shows a feeling of less security within family and low confidence to rely on parental resources for advice and comfort. Meaning the higher the adults feel emotionally autonomous in EAS score, the lesser they feel connected to their parents.

In line with this finding, Furman and Holmbeck (1995) found that adolescents (10-18) having high in EAS scores were less securely attached and did not use parents for emotional support. Moreover Furman and Holmbeck concluded that the EAS measures ambiguous dimension as to whether measure earlier attachment patterns of parent-child relationships or adolescent accomplishments as adaptive to their developmental needs (such as autonomous functioning).

In addition to this, Lamborn (cited in Schmitz and Baer, 2001) found that during adolescents' emotional autonomy, as measured by EAS, could only be adaptive if the family environment is stressful. That is, adolescents who live in stressful environment with their parents could adjust by detaching themselves from their parents. As a result, adolescents can feel secure when they go to peers and other adults (e.g. teachers) rather than with their parents.

Recently, Schmitz and Baer (2001) conducted a confirmatory factor analysis of the Emotional Autonomy Scale of Steinberg and Silverberg on samples of three ethnic groups.

Results showed poor construct validity for any of age and ethnic groups examined in the study. That is, the scale did not measure what it meant to measure.

Therefore, this could be the reason that leads to variation in findings among different researchers and the debate could be justified as EAS did not measure the development of emotional autonomy of adolescents. Moreover, one can not generalize about the extent of adolescent autonomy development just by measuring only its emotional aspects rather should include the cognitive and behavioral aspect to be confident in interpreting the results.

Moreover, during adolescence, there is a movement away from the dependency distinctive of childhood toward the autonomy typical of adulthood. But the growth of autonomy during adolescence is often misunderstood. That is, autonomy is often perplexed with rebellion, and becoming an independent person is often equated with breaking away from the family. Therefore, one could understand autonomy by investigating the different skills (e.g. decision making abilities, resistance to conformity, self-reliance) that will help the adolescents to develop healthy self-governance of their behavior.

2.4.2 Autonomy as Individuation

As an alternative to the classical perspective in adolescent detachment, Peter Blos (cited in Beyers and Goossens, 1999) reported that the process of individuation which begins all through infancy and continues fit into late adolescence, involves a stable, progressive sharpening of one's sense of self as autonomous, as proficient, as detachment from one's parents. Individuation entails relinquishing childish dependencies on parents in favor of more mature, more responsible, and less dependent relationships. Josselson (cited in Steinberg, 1993) noted

that individuated adolescents can accept responsibility for their own choices and actions instead of looking to parents to do it for them.

Blos (cited in Adams, 1992) pointed out that successful individuation involves transforming the parent-child relationship to allow freedom to adolescents to experience themselves as separate from parents. But parents should also retain attachment to adolescents all the way through emotional support and practical advice and avoiding dictating adolescents' emotions or attitudes by demanding their psychological conformity. The importance of maintaining connectedness with adolescents during individuation process is supported by research findings representing that the stronger the bond between parents and adolescents, the lesser in susceptibility to engage in delinquent behaviors (Steinberg, 1993). In this view, autonomy or individuation process is seen as adolescents' development of separated self from parents through supportive environment that facilitates adolescents' expression of natural tensions and conflicts that occur due to generational differences with their parents (Adams, 1992). Therefore, conflict between parents and adolescents is considered as necessary to resolve early childhood emotional relationships with parents.

2.4.3. Autonomy as Self-governance

Autonomy in this view is defined as the ability to regulate one's own behavior. Adolescents develop autonomy through their relationship in their families and with people outside of their families that requires the provision of wider opportunities to govern their own behavior. That is, autonomy involves the experience of internal locus of causality for one's action that typifies the action as originated from within the self rather than being controlled or directed (Russell and Bakken, 2002).

Autonomy in this view uses concepts like non-conformity, internal locus of control, resistance to persuasion by parents or peers, instrumentality, self-determination, and competence. Development of autonomous inner controls requires an exposure to diverse social experiences in a peer group (Malmquist, 1979).

Consistent with this Fuligni and Eccles (1993) supported in their finding that adolescents who have parents that give decision –making opportunities are less likely to be influenced by peer pressure and develop autonomy effectively. Thus, the peer group setting provides the adolescent with an opportunity to check his or her own internalized views of the world versus alternatives. Over protection makes this exposure threatening and hinders development of self-reliance that is autonomous functioning.

Hence, autonomy does not refer to independence, freewill, individualism, or detachment; it rather refers to feelings that one’s behavior is self-chosen and meaningful in contrast to being forced. A recent definition by Crittendon (cited in Collins et al., 1997) holds that autonomy comprises of capacities for taking responsibility for ones’ own behavior, making decisions regarding one’s own life, and maintaining supportive relationships. Therefore, autonomy refers not to freedom from others (e.g. parents), but freedom to carryout actions on one’s own behalf while maintaining appropriate connections to significant others.

2.5. Factors that Contribute to Adolescent Autonomy

Silverberg (cited in Fabes and Martin, 2000) suggested that issues of autonomy occur throughout the life of an individual; they are not confined to adolescence period. For instance, adults may struggle to decide on the time they spent with their marriage versus their career.

However, the issues of autonomy are unique during adolescence (Fabes and Martin, 2000) due to the physical, cognitive, and social role changes occurring in the adolescent's life.

Physiological Changes: - Freud (cited in Steinberg, 1993) suggested that the physical changes of adolescence trigger changes in the adolescents' emotional relationships with parents. Adolescents' interest in turning away from parents and relying on peers for emotional support could be sparked by their emerging interest in sexual relationship and their over concern over such things as dating and intimate friendships.

Moreover, the changes in height and bodily appearance occurring at puberty may provoke changes on the amount of autonomy granted to adolescents. For instance, adolescents who simply look more mature may be given more responsibility by adults around them.

Cognitive Changes: - Adolescents develop a meta-cognitive and creative thinking ability. As a result, they are able to take other person's perspectives into consideration, give justifications in more sophisticated ways, and predict the future consequences of alternative courses of action (Steinberg, 1993). These skills can help adolescents to weigh the opinion and suggestions of others more effectively and they can reach on their own independent decision confidently.

Furthermore, Mazor (cited in Steinberg, 1993) noted that changes in adolescents' thinking ability are important for adolescents to develop their own sense of right and wrong in social, moral, and ethical values of the society. That is, adolescents can develop their own system of values rather than mere acceptance of rules and regulations of authority figures.

Social Role Changes: - During adolescence, the wider social relationship (e.g. peers) and exposure to new tasks in school and other activities provide adolescents to move into wider opportunity and new positions that demand increasing degrees of responsibilities and self-reliance(Steinberg,1993). As a result, adolescents develop an increased concern for autonomy.

Few studies have examined the links between adolescent autonomy and perceived parent-adolescent relationship quality. For instance, Beyers and Goossens (1999) pointed out that high levels of parental warmth and monitoring were associated with lower levels of adolescents' autonomy, especially emotional autonomy. Moreover, in their study authoritativeness (higher level of parental involvement and lower level of parental strictness) predicted lower level of emotional autonomy as measured by Steinberg and Silverberg's Emotional Autonomy Scale. Similarly, Ryan and Lynch (1989) using the same measurement of emotional autonomy scale found negative association between parental nurturance and emotional autonomy.

On the contrary, Noom, et al., (1999) reported that a positive relationship (perceived parental warmth and monitoring) with parents can provide a supportive base from which adolescents can develop emotional, attitudinal, and functional autonomy. Moreover, Noom suggested that to know the associations between parenting and adolescents' autonomy development it is necessary to use a scale which comprises the affective, behavioral and cognitive aspects of autonomy.

2.7. Adolescents' Autonomy and Psychosocial Adjustment

Psychoanalytic theorists have long suggested that successful establishment of autonomy from parents is a key factor to healthy socio-emotional development during adolescence, with regard to functioning within the parent-adolescent relationship (Allen et al., 2000). Currently, emphasis is given to the importance of establishing autonomy while also maintaining positive parent-adolescent relationship. A large body of research has yielded definitive support for the role of autonomy on promoting social functioning of adolescents. Several studies (for instance, Beyers and Goossens, 1999; Allen et al., 2000; Silk et al., 2003; Smetana, 2004) have found links

between parenting that discourages individual autonomy and difficulties in social interaction with peers during early childhood.

Smetana (2004) found that too much autonomous decision-making regarding multifaceted issues was associated with more negative outcomes in early adolescence, including greater deviance, poorer self-worth, and lower academic performance. Moreover, in the finding mothers' rating of middle adolescents' more autonomous decision-making over multifaceted issues was associated concurrently with greater deviance. However, in the longitudinal analysis of increased autonomy over multifaceted issues from middle to late adolescents, predicted less depression and better self-worth. Moreover, Dornbush et al and Lamborn et al (cited in Smetana, 2004) suggested that too early autonomy has negative effects on late adolescent adjustment.

The negative results of autonomous decision-making during adolescence could be justified by emphasizing the importance of parents' decision-making input over personal issues (such as personal preference, styles, activities, and friends) of adolescents. Parental guidance and supervision during adolescence may facilitate healthy development, at least until adolescents have acquired the ability of competence to make mature and safe decisions about different issues.

In contrast, Beyers and Goossens (1999) found an association of higher level of autonomy (as measured by EAS) with greater self-reliance, more internal distress, and more deviant behavior. The size of the correlation, however, differs for emotional and behavioral autonomy, while emotional autonomy was more strongly related with internal distress, behavioral autonomy was more strongly related with self-reliance.

Hence, these inconsistent results in the psychosocial outcomes of adolescent autonomy development initiates further research to be made cross-culturally, because behaviors which are adaptive in one culture might be maladaptive in other cultures. So the result of the local study

might differ. But as a developmental study, emphasis is made on the developmental characteristics of adolescent autonomy.

2.8. Perceived Parent-Adolescent Relationships, Adolescents'

Autonomy and Psychosocial Adjustment

A few studies concentrated on the combinational effect of perceived parent-adolescent relationship and adolescents' autonomy on their psychosocial adjustment. These studies have shown that both autonomy and perceived parent-adolescent relationships reveal a relationship with indices of psychosocial adjustments (Noom, et al., 1999). That is, it was found that adolescents with high scores on all aspects of autonomy (attitudinal, emotional, and functional), and who have good relationship (high warmth and monitoring, and less strictness) with their parents, are most satisfied about themselves. Moreover, a combination of functional autonomy, a bad relationship with parents creates risk for engagement in problem behavior, while a combination of low attitudinal autonomy and a poor relationship with parents increase the risk of depressive feelings. Hoffman (1984) found negative relationship between attitudinal autonomy and personal adjustment. These patterns were highly similar for both males and females. Moreover, Lamborn and Steinberg (1993) found negative outcomes of having unsupportive family environment combined with a sense of emotional detachment from parents. Fuhrman and Holmbeck (1995) found that positive adjustment seemed associated with high emotional autonomy and less supportive family environment. Thus, these findings show that the indirect effect of perceived parent-adolescent relationships via adolescents' autonomy has inconsistent result and most results show negative outcomes as measured by EAS. Therefore, to see the direct

and indirect impact of perceived parent-adolescent relationships on adolescents' psychosocial adjustment, investigation has to be made in our context.

CHAPTER THREE

Method of the Study

3.1. Target Population and Sample Size

The population of the study is confined to Addis Ababa high school adolescent students. The target population for the main study is regular grade nine, ten, eleven, and twelve students (males and females) of the selected secondary school. According to the statistical data procured from the participating school, there were 7076 students (M=3644 and F= 3432).

The sample size was determined by using Krejcie and Morgan's (1970) formula of determining sample size for research activities (see appendix-c). Accordingly, the sample size became 364. It was felt that, it is also valuable to add 10% of the sample size to balance the cases of incomplete questionnaires, if any. Hence, the sample size became 400 students.

3.2 Sampling

Simple random sampling technique is used to obtain the participating school. Out of eighteen senior secondary schools that comprise both male and female students, one school was randomly selected using lottery method.

3.3. Participants

The data for this study comes from questionnaires administered in the 2004/5 year to grade 9, 10, 11, and 12 students from one high school in Addis Ababa. That is, after having one high school from the total population, stratified random sampling method is used to get the participants. The total population was divided into grade and sex strata (grade 9, 10, 11, and 12,

and males and females). Accordingly, in each grade strata, the number of students to be selected is determined by equal allocation method. Finally, simple random sampling method is used to select the desired number of sample from each section. Five sections were randomly selected from each grade and in each section 20 students (10 males and 10 females) were randomly selected using lists from the class roasters. The number of males and females was made equal for the convenience of statistical treatment.

3.4. Test Tryout

Even though the adopted instruments have already been standardized, it would be imperative to note that pilot study should be made to check the reliability of the instrument in our local contexts. The items were translated into Amharigna in order to make them easily understandable by secondary school students. The items that express negative ideas or intensions were reversely coded. Then, the instruments were pilot tested in Addis Ababa. In the pilot test 40 students participated. The reliability of the instrument is measured using Cronbach alpha and inter-item correlational analysis. Accordingly, instruments used in this study, and reliability indices were presented in table 1 below.

Table 1. Reliability Coefficient of Variables in the Study

No.	Variables	Reliability Indices
Perceived Parent-Adolescent Relationships Sub-scales		Cronbach alpha
1.	Perceived Parental Warmth Scale	0.87
2.	Perceived Parental Monitoring Scale	0.69
3.	Perceived Parental Strictness Scale	0.68
Adolescents Autonomy Sub-scales		Cronbach alpha
1.	Attitudinal Autonomy Scale	0.69
2.	Emotional Autonomy Scale	0.70
3.	Functional Autonomy Scale	0.80
Psychosocial Adjustment Sub-scales		Cronbach alpha
1.	Self-reliance Scale	0.70
2.	Distress Scale	0.60
3.	Problem behavior Scale	0.79

3.5. Measures

Perceived parent-adolescent relationship questionnaires- are constructed using items which are taken or adapted from existing measures of parenting practices (Eccles, et al., 1993; Dekovic, 1999). This study used three sub-scales to measure the perceived parent-adolescent relationships. *Perceived parental warmth* assessed adolescents' perception of the extent to which they experience their father/mother as loving, intimate, and expressive of affection in words and actions, as well as the extent of adolescents' perception of father/mother as providing emotional and resource support, and their involvement in their everyday life using ten items. The scale values ranged from 1 (strongly disagree) to 5 (strongly agree). The internal consistency of the scale ranged from $\alpha = 0.76$ to 0.88. Moreover, Chen et al., (cited in Dimitrieva, 2004) made validity and found cross-cultural factorial and strong factorial invariance for U.S., Chinese, Korean, and Czech Republic participants. *Perceived parental strictness* is measured with ten items. The scale emphasizes how adolescents' perceive the extent their family coerce to follow their rules and have value ranged from 1 (strongly disagree) to 5 (strongly agree) and *perceived parental monitoring* is measured using ten items adapted from Eccles et al., (1993). It deals with how adolescents' perceive their parents' technique to supervise their activities.

Adolescent autonomy measures- three aspects of adolescent autonomy are measured by Noom's et al., (2001) scale. Each component of autonomy consists of five items. (The internal consistency for attitudinal autonomy is $\alpha = 0.71$; for emotional autonomy $\alpha = 0.60$; and functional autonomy $\alpha = 0.64$. Moreover, correlation between the three sub-scales of autonomy are ranged from 0.38 to 0.49, indicating that the subscales express the general concept of autonomy and also they tapped different elements of autonomy. Noom et al., (2001) tried to validate the scale and

found high correlations between comparable concepts and low correlations between distinct concepts.

Psychosocial adjustment measures- include measures of self-concept, self-reliant, internal distress, and problem behaviors. *Self-concept* is measured on a total score of Rosenberg self-Esteem Scale as well as self-perception profile for adolescents. The *self-reliance subscale* of the Psychosocial Maturity Inventory measures adolescents' absence of excessive dependency on others and have an internal consistency of $\alpha = 0.70$.

It consists of ten items on five-point Likert scales ranging from "strongly disagree" to "strongly agree". *Internal Distress Scale* is measured using ten items of Depression Scale of Radolf (1977) which have an internal consistency of $\alpha = 0.77$. The frequency of depressive symptom values ranges from 1(never) to 4(always every day). *Adolescent problem behaviors* are measured with ten item scale that assessed frequency of adolescent involvement in problem behaviors over multiple domains including risk taking, substance use, school misconduct, physical aggression in the past 6 months. Response values were ranged from 1(never) to 4(always) and have an internal consistency ranging from $\alpha = 0.89$ to 0.94.

Demographic information included adolescent students' gender and their parents.

3.6. Method of Data Analysis

Once the data were collected, they were subjected to inspection using various statistical analyses. The statistical methods used in this study were selected based on the hypothesis formulated in the study. The formulated hypotheses relate to relations, prediction, and mediation.

1. T-test was computed to see whether students of different sex differ in perceived parent-adolescent relationship, adolescent autonomy development, and psychosocial outcomes.

2. Pearson Product Moment Correlation was computed to see the relationship of perceived parent-adolescent relationship variables and aspects of adolescent autonomy development and psychosocial adjustment of adolescents.
3. Path Model Testing was applied to examine separate and combined effects of perceived parent-adolescent relationships and aspects of adolescent autonomy on the psychosocial adjustments of adolescents. Since path coefficients are standardized regression coefficient, partial regression analysis was employed in order to further explicate the nature of interrelationships between variables.

CHAPTER FOUR

RESULTS

The results of the study are presented in a summarized form of descriptive statistics, correlation, regression analysis and path analysis.

4.1. Descriptive Statistics and Bivariate Correlations of the Study

Variables

To examine see the extent of each variable on the participants, descriptive statistical analysis was made and mean, standard deviation, and percentage of individuals above and below the mean are presented in table 2 below. Previously, the normality of the distribution of the scores was tested and results showed that the scores were normally distributed. As a result, the mean of each variable could be a point of separation for the higher and lower scores to describe. Accordingly, over half of the participants responded above the average score in perceived parental warmth, monitoring, attitudinal autonomy, and self-reliance. In other words, 60% of adolescents in this study perceived their parents as warm and 53% of adolescents perceive parental monitoring in their relationship with their parents. Furthermore, adolescents' development in attitudinal autonomy was observed on about 58% of the participants and 54% of the respondents were self-reliant.

Table 2 Summary Report of the Variables in the Study

Variables	N	Mini mum Score	Maxi mum Score	Mean	Standard Deviation	% above the mean	% below the mean
<i>Parental Warmth</i>	400	8	32	25.79	4.66	60.3%	39.8%
<i>Parental Monitor</i>	400	7	28	19.30	5.15	53.3%	46.8%
<i>Parental Strictness</i>	400	5	20	10.20	3.68	42.8%	57.3%
<i>Attitudinal Autonomy</i>	400	5	20	13.96	3.38	57.8%	42.3%
<i>Emotional Autonomy</i>	400	5	20	14.17	3.16	48.3%	51.8%
<i>Functional Autonomy</i>	400	5	20	13.25	2.90	47.8%	52.3%
<i>Self-Reliance</i>	400	9	28	22.30	3.83	54.3%	45.8%
<i>Distress</i>	400	4	16	8.42	3.08	45%	55%
<i>Problem behavior</i>	400	7	24	8.74	3.02	29.8%	70.3%

As background information, whom adolescents live with was seen and about 66.3% of the respondents live with both their father and mother which are shown below in table 3.

Table 3 Frequency of Adolescents' Parents

Parents	Frequency	Percent	Cumulative
<i>Mother Only</i>	60	15%	15
<i>Father Only</i>	14	3.5%	18.5
<i>Both mother and father</i>	265	66.3%	84.8
<i>Relatives</i>	55	13.8%	98.5
<i>Other Caregivers</i>	6	1.5%	100.0
Total	100	100%	

To examine the relationships between related variables, bivariate correlational analyses were conducted. Hence, Pearson Product Moment correlations between perceived parental warmth, monitoring, strictness, and attitudinal, emotional, and functional autonomy and different aspects of psychosocial adjustment, as well as correlations between all these variables and sex, are included and presented in table 4 on page 47.

Based on the result, high levels of warmth and monitoring were associated with higher levels of emotional, functional, and attitudinal autonomy. On the other hand, perceived parental strictness was related negatively with emotional and attitudinal autonomy. However, it is not related with functional autonomy. Moreover, perceived parental monitoring and warmth was also associated with adolescents' greater self-reliance, less distress, and less problem behavior. Furthermore, sex shows a significant association with attitudinal and functional autonomy and problem behavior. That is, male and female adolescent students show significant difference in the previously listed three variables only. Using independent sample test, in all of the three variables, i.e., attitudinal, functional autonomy, and problem behavior, males are significantly higher than female adolescents on t-value of (-2.54, 398), (-2.64, 398) and (-2.70, 398) at $p \leq .05$ respectively.

Table 4 Bivariate Correlation for Perceived Parent-Adolescent Relationships, Adolescents' Autonomy and Psychosocial Adjustment and Sex.

No	Variables		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.	SEX	Pear. Corr.	1	.084	-.048	.022	.126*	.037	.131**	-.054	-.017	.134**
		Sig. (2-tailed)		.092	.342	.664	.012	.458	.009	.279	.733	.007
2.	WARMTH	Pear. Corr.	.084	1	.378**	.370**	.263**	.192**	.245**	.351**	.299**	.258**
		Sig. (2-tailed)	.092		.000	.000	.000	.000	.000	.000	.000	.000
3.	MONITOR	Pear. Corr.	-.048	.378**	1	.030	.173**	.127*	.211**	.171**	.231**	.220**
		Sig. (2-tailed)	.342	.000		.550	.001	.011	.000	.001	.000	.000
4.	STRICT	Pear. Corr.	.022	.370**	.030	1	.201**	.165**	-.043	.242**	.185**	.158**
		Sig. (2-tailed)	.664	.000	.550		.000	.001	.389	.000	.000	.002
5.	ATTITUDE	Pear. Corr.	.126*	.263**	.173**	.201**	1	.375**	.466**	.391**	.390**	-.105*
		Sig. (2-tailed)	.012	.000	.001	.000		.000	.000	.000	.000	.035
6.	EMOTION	Pear. Corr.	.037	.192**	.127*	.165**	.375**	1	.280**	.326**	.323**	-.122*
		Sig. (2-tailed)	.458	.000	.011	.001	.000		.000	.000	.000	.015
7.	FUNCTION	Pear. Corr.	.131**	.245**	.211**	-.043	.466**	.280**	1	.341**	.341**	-.092
		Sig. (2-tailed)	.009	.000	.000	.389	.000	.000		.000	.000	.066
8.	RELIANCE	Pear. Corr.	-.054	.351**	.171**	.242**	.391**	.326**	.341**	1	.500**	.315**
		Sig. (2-tailed)	.279	.000	.001	.000	.000	.000	.000	.000		.000
9.	DISTRESS	Pear. Corr.	-.017	.299**	.231**	.185**	.390**	.323**	.341**	.500**	1	.225**
		Sig. (2-tailed)	.733	.000	.000	.000	.000	.000	.000	.000	.000	
10.	PROBLEM	Pear. Corr.	.134**	.258**	.220**	.158**	-.105*	-.122*	-.092	.315**	.225**	1
		Sig. (2-tailed)	.007	.000	.000	.002	.035	.015	.066	.000	.000	

** $P < 0.01$ * $P < 0.05$

4.2. Direct and Mediated Relationships of the Variables

To obtain the direct and mediated relationships of variables specified in figure 1 partial regression analyses were employed for obtaining beta weights.

4.2.1. Perceived Parent-Adolescent Relationships as Predictors of Adolescents' Autonomy and its Components

To examine the direct effects of perceived parental warmth, monitoring, and strictness on adolescents' attitudinal, emotional, and functional autonomy regression analysis were conducted by controlling the two for one. When adolescents' attitudinal autonomy was regressed on perceived parental warmth, monitoring, and strictness, the results displayed in table 5 (page 49) showed that perceived parental warmth ($\beta=.263$, $P\leq .05$), and perceived parental monitoring ($\beta=.173$, $P\leq .05$) were significantly positive predictor of adolescents' development of attitudinal autonomy. On the contrary, perceived parental strictness ($\beta=-.201$, $P\leq .05$) was significantly negative predictors of adolescents' development of attitudinal autonomy. In this finding, perceived parental warmth, monitoring, and strictness accounted for about 7%, 3%, and 4% of the variation of adolescents' attitudinal development respectively.

Furthermore, the results of adolescents' emotional autonomy development as regressed on perceived parental warmth, monitoring, and strictness was found to be ($\beta=.192$), ($\beta=.127$), and ($\beta=-.165$), respectively. Thus, perceived parental warmth and monitoring were significantly positive predictors of emotional autonomy and perceived parental strictness was a significant negative predictor of adolescents' emotional autonomy development. Perceived parental warmth, monitoring, and strictness accounted for 4%, 2%, and 3% of the variance in adolescents' emotional autonomy development.

In addition, when adolescents' functional autonomy was regressed on perceived parental warmth, monitoring, and strictness, the results revealed that perceived parental warmth ($\beta=.245$, $P\leq .05$), perceived parental monitoring ($\beta=.211$, $P\leq .05$) were significant positive predictors of adolescents' functional autonomy development. But perceived parental strictness show non-significant relationship with adolescents' functional autonomy. Perceived parental warmth and monitoring accounted for 6% and 4% of the variation in adolescents' functional autonomy development.

Table 5 Summary table of perceived parent-adolescent relationships as predictors of adolescents' autonomy and its components.

Predictors	Adolescents' Autonomy Development							
	Emotional Autonomy		Attitudinal Autonomy		Functional Autonomy		Autonomy in Total	
	R ²	β	R ²	β	R ²	β	R ²	β
Perceived Parental Warmth	.04	.192*	.07	.263*	.06	.245*	.09	.305*
Monitoring	.02	.127*	.03	.173*	.04	.211*	.05	.221*
Strictness	.03	-.165*	.04	-.201*	.002	-.043	.03	-.184*

$N=400$ β =Standardized regression coefficient $*P\leq .05$

4.2.2. Perceived Parent-Adolescent Relationships as predictors of Adolescents' Psychosocial Adjustment

To see the effect of perceived parental warmth, monitoring, and strictness on adolescents' self-reliance, distress, and problem behavior, partial regression analyses was conducted by controlling the two for one. The results disclosed (in table 6 next page) that perceived parental warmth ($\beta=.351$, $P\leq .05$), parental monitoring ($\beta=.171$, $P\leq .05$), and parental strictness ($\beta=-.242$, $P\leq .05$) were significant predictors of adolescents' self reliance. That is, as parental warmth

and monitoring are highly perceived by adolescents, their self-reliance will also be higher which indicates parental warmth and monitoring are positive predictors of adolescents' self reliance. On the contrary, parental strictness predicts adolescents' self-reliance negatively. Perceived parental warmth, monitoring, and strictness accounted for 12%, 3%, and 6% of the variation in adolescents' self-reliance.

Furthermore, as distress regressed on perceived parental warmth, monitoring, and strictness, the result is found to be ($\beta=-.299$), ($\beta=-.231$), and ($\beta=.185$), respectively. When we see the proportion of variance of adolescents' distress accounted for by perceived parental warmth, monitoring, and strictness, it was about 8%, 5%, and 3% respectively. In addition, perceived parental warmth ($\beta=-.258$, $P\leq.05$), parental monitoring ($\beta=-.220$, $P\leq.05$), and parental strictness ($\beta=.158$, $P\leq.05$) were significant predictors of adolescents' problem behavior. Thus, parental warmth and monitoring predicted adolescents' problem behavior negatively whereas parental strictness had a positive effect on adolescents' problem behavior. The proportion of variation of adolescents' problem behavior accounted for by perceived parental warmth, monitoring, and strictness were 7%, 5%, and 3%, respectively.

Table 6 Summary table of perceived parent-adolescent relationships as predictor of adolescents' psychosocial adjustment.

No.	Predictors Perceived Parent-Adolescent Relationships	Adolescents' Psychosocial Adjustments					
		Self-reliance		Distress		Problem behavior	
		R ²	β	R ²	β	R ²	β
1.	Perceived Parental Warmth	0.12	.351*	.08	-.299*	.07	-.258*
2.	Perceived Parental Monitoring	0.03	.171*	.05	-.231*	.05	-.220*
3.	Perceived Parental Strictness	0.06	-.242*	.03	.185*	.03	.158*

N=400 β = Standardized regression Coefficient * $P\leq.05$

4.2.3. Adolescents' Autonomy and its Components as Predictors of Adolescents' Psychosocial Adjustment

To examine the general effect of autonomy and separate effects of its components on adolescents' psychosocial adjustment, adolescents' self-reliance, distress, and problem behavior (psychosocial adjustments) were regressed on adolescents' attitudinal, functional and emotional autonomy by controlling the two for one(see table 7 on page 52). As a result, adolescents' attitudinal autonomy ($\beta=.391$), emotional autonomy ($\beta=.326$), and functional autonomy ($\beta=.341$) were significant positive predictors of adolescents' self-reliance at $P\leq 0.05$. Adolescents' attitudinal, functional, and emotional autonomy accounted for 15%, 12%, and 12% of the variation in adolescents' self-reliance. Moreover, adolescents' emotional ($\beta=-.323$), attitudinal ($\beta=-.390$), and functional ($\beta=-.341$) autonomy were significant negative predictors of adolescents' distress at $P\leq 0.05$. The proportion of variation of adolescents' distress accounted for by adolescents' emotional, attitudinal and functional autonomy was about 10%, 15%, and 12% respectively.

Furthermore, adolescents' emotional ($\beta=-.122$) and attitudinal ($\beta=-.105$) autonomy were significant negative predictors of adolescents' problem behavior. However, functional autonomy shows non-significant relationship with adolescents' problem behavior at $P\leq 0.05$. Both adolescents' emotional and attitudinal autonomy accounted for 2% of the variation in adolescents' problem behavior.

In general, when we see the total effect of autonomy on adolescents' self-reliance, it was ($\beta=.463$), in distress ($\beta=.461$), and in problem behavior ($\beta=-.140$) which account for 21%, 21%, and 2% of the variation in adolescents' self-reliance, distress, and problem behavior.

Table 7 Summary table of Adolescents' Autonomy and its Components as Predictor of adolescents' Psychosocial Adjustment.

No.	Predictors	Adolescents' Psychosocial Adjustments					
		Self-reliance		Distress		Problem behavior	
		R ²	β	R ²	β	R ²	β
1.	Autonomy	.21	.463*	.21	-.461*	.02	-.140*
2.	Emotional Autonomy	.12	.326*	.10	-.323*	.02	-.122*
3.	Attitudinal Autonomy	.15	.391*	.15	-.390*	.02	-.105*
4.	Functional Autonomy	.12	.341*	.12	-.341*	.01	-.092

* $P \leq 0.05$

4.3. Mediation Relationships

Mediation is a hypothesized causal chain in which mediator variables account for the relationships between a predictor and the dependent variable. To test for mediators, one can begin with estimating three regression equations McKinnon (n.d): Kenny (2003):

1. The mediator predicted by the independent variable,
2. The dependent variable predicted by the independent variable,
3. The dependent variable predicted by the mediator and independent variable.

If the three conditions are significant and in the third case if the effect of the independent variable on the dependent variable decreases dramatically in the presence of the mediator, then the mediator may be accounting for the effect of the independent variable in question (see appendix-E for details).

4.3.1. Adolescents' Autonomy as mediator of Perceived Parent-Adolescent Relationships and Adolescents' Psychosocial Adjustment

To examine the mediation effect of adolescents' autonomy on perceived parent-adolescent relationships and adolescents' psychosocial adjustments, the three requirements proposed by Kenney (2003) were checked. Thus, the result showed that perceived parent-adolescent relationships were significant predictors of adolescents' psychosocial adjustment and autonomy. Moreover, autonomy had a significant relation with adolescents' psychosocial adjustment in the presence of perceived parent adolescent relationship variables in the equation. In addition, the direct effects of perceived parent-adolescent relationship variables on adolescents' psychosocial adjustment were reduced when mediator variables were in the equation.

4.3.1.1. Indirect Effect of Perceived Parental Warmth, Monitoring and Strictness on Adolescents Self-Reliance via Adolescents' Autonomy and its Components

When adolescents' self-reliance was regressed on perceived parental warmth, monitoring, and strictness, while controlling one for the other, results disclosed (refer to table 8 on page 58) that perceived parental warmth ($\beta = .299$), parental monitoring ($\beta = .137$), and parental strictness ($\beta = -.294$) were significant predictors of self-reliance while adolescents' emotional autonomy is added in the equation. On the other hand, when adolescents' attitudinal autonomy is added, the result revealed that perceived parental warmth ($\beta = .266$), parental monitoring ($\beta = .106$), and parental strictness ($\beta = -.170$) were significant predictors of adolescents' self-reliance. Furthermore, when functional autonomy is entered in the equation, it was found that

perceived parental warmth ($\beta = .284$), parental monitoring ($\beta = .103$), and parental strictness ($\beta = -.228$) were significant predictors of adolescents' self-reliance.

Generally, when the total adolescents' autonomy was entered in the equation, the result disclosed that perceived parental warmth ($\beta = .231$) and parental strictness ($\beta = -.163$) were significant predictors of adolescents' self-reliance. However, perceived parental monitoring was non-significantly different from zero and the mediator, adolescent autonomy ($\beta = .447$) was a significant positive predictor of adolescents' self-reliance. Here the non-significant relationship confirms full mediational model of the relationship between perceived parental monitoring and adolescents' self-reliance via autonomy. Thus, from the above results, it was also observed that the direct effect of perceived parental warmth, monitoring, and strictness were reduced or non-significantly different from zero when the mediators are in equation. In other words, the effect perceived parental warmth on adolescents' self-reliance was reduced when adolescents' emotional, attitudinal, functional autonomy, and total adolescents' autonomy entered in the equation (from $\beta = 0.351$ to $.299$, $.266$, $.284$, and $.231$, respectively). Similarly, perceived parental monitoring and parental strictness were reduced from ($\beta = 0.171$ to $.137$, $.106$, $.103$, and $.072$) and ($\beta = 0.242$, to $-.194$, $-.170$, $-.228$, and $-.163$), respectively.

As expected the mediated effects of perceived parental warmth, monitoring, and strictness on adolescents' self-reliance via emotional autonomy using t-test is ($Z = 3.26$, 2.32 , and -2.92 respectively) and via attitudinal autonomy ($Z = 4.29$, 3.25 , and -3.62 , respectively) were significant at $P \leq .05$. When the indirect effect of perceived parental warmth, parental monitoring, and parental strictness through functional autonomy were observed, parental warmth ($Z = 3.85$, $P \leq .05$) and parental monitoring ($Z = 3.59$, $P \leq .05$) were significant. But the effect of perceived parental strictness was non-significant. Moreover, when adolescents' autonomy in total mediates

the result became ($Z=5.14$), ($Z=4.09$), and ($Z=-3.47$) for perceived parental warmth, monitoring, and strictness respectively.

4.3.1.2. Indirect Effect of Perceived Parental Warmth, Parental Monitoring and Parental Strictness on Adolescents' Distress via Adolescents' Autonomy and its Components.

When adolescents' distress was regressed on perceived parental warmth, parental monitoring, and parental strictness, the result portrayed that perceived parental warmth ($\beta=-.276$), parental monitoring ($\beta=-.193$), and parental strictness ($\beta=.135$) were significant predictors of adolescents' distress while adolescents' emotional autonomy was in the same equation. Similarly, when adolescents' attitudinal autonomy added in the regression equation of perceived parental warmth, parental monitoring, and parental strictness, while controlling one for another, it was found to be ($\beta=-.211$), ($\beta=-.168$), and ($\beta=.111$) significant predictors of adolescents' distress, respectively. In addition, perceived parental warmth ($\beta=-.229$), parental monitoring ($\beta=-.166$), and parental strictness ($\beta=.170$) were significant predictors of adolescents' distress while adolescents functional autonomy is entered in the equation. In total, when adolescents' distress was regressed on adolescents' autonomy and perceived parental warmth, parental monitoring, and parental strictness, the result showed that perceived parental warmth ($\beta=-.174$), parental monitoring ($\beta=-.135$), and parental strictness ($\beta=.104$) were significant predictors of adolescents' distress.

Hence, from the above results, it was observed that the direct effect of perceived parental warmth, parental monitoring, and parental strictness were reduced while mediating variables are

entered in the equation. Thus, parental warmth was reduced when adolescents' emotional, attitudinal, functional and the total autonomy were entered in the equation and became ($\beta = -.299$ to $-.246$, $-.211$, $-.229$, and $-.174$, respectively). Similarly, perceived parental monitoring and parental strictness were reduced from ($\beta = -.231$ to $-.193$, $-.168$, $-.166$, and $-.135$) and ($\beta = .185$ to $.135$, $.111$, $.170$, and $.104$), respectively.

In further examining the mediational effect of variables, the significance test of Z- score revealed that the indirect effect of perceived parental warmth, parental monitoring, and parental strictness on adolescents' distress via emotional autonomy yields ($Z = -3.29$, -2.31 , 2.93 , $P \leq .05$, respectively), and via attitudinal autonomy ($Z = -4.31$, -3.24 , $.364$, $P \leq .05$, respectively). The indirect effect of parental warmth ($Z = -3.90$, $P \leq .05$) and parental monitoring ($Z = -3.55$, $P \leq .05$) on adolescents' distress through functional autonomy was found to be significant. But perceived parental strictness had non-significant indirect effect on adolescents' distress.

4.3.1.3. Indirect Effect of Perceived Parental Warmth, Parental Monitoring and Parental Strictness on Adolescents' Problem Behavior via Adolescents' Autonomy and Its Components.

When adolescents' problem behavior was regressed on perceived parental warmth, parental monitoring, parental strictness and adolescents' autonomy and its components, while controlling one for the other, the result showed that the direct effect of parental warmth ($\beta = -.243$), parental monitoring ($\beta = -.208$), and parental strictness ($\beta = .142$) were significant predictors of adolescents' problem behavior with the presence of adolescents' emotional autonomy, and with the presence of attitudinal autonomy it was ($\beta = -.247$), ($\beta = -.208$), and ($\beta = .143$), respectively

which were significant at $P \leq .05$. Furthermore, in the presence of functional autonomy the direct effect of perceived parental warmth ($\beta = -.250$), parental monitoring ($\beta = -.124$), and parental strictness ($\beta = .127$) had significant effect on adolescents' problem behavior. Even though, the above direct effects were reduced relative to the direct effects in absence of mediated variables in the equation, the mediated variables (adolescents' emotional, attitudinal, and functional autonomy) showed non-significant relationship with adolescents' problem behavior in the presence of perceived parent-adolescent relationship variables. Therefore, this signifies the absence of mediated effect of perceived parental warmth, parental monitoring, and parental strictness through adolescents' emotional, attitudinal, functional autonomy on problem behavior.

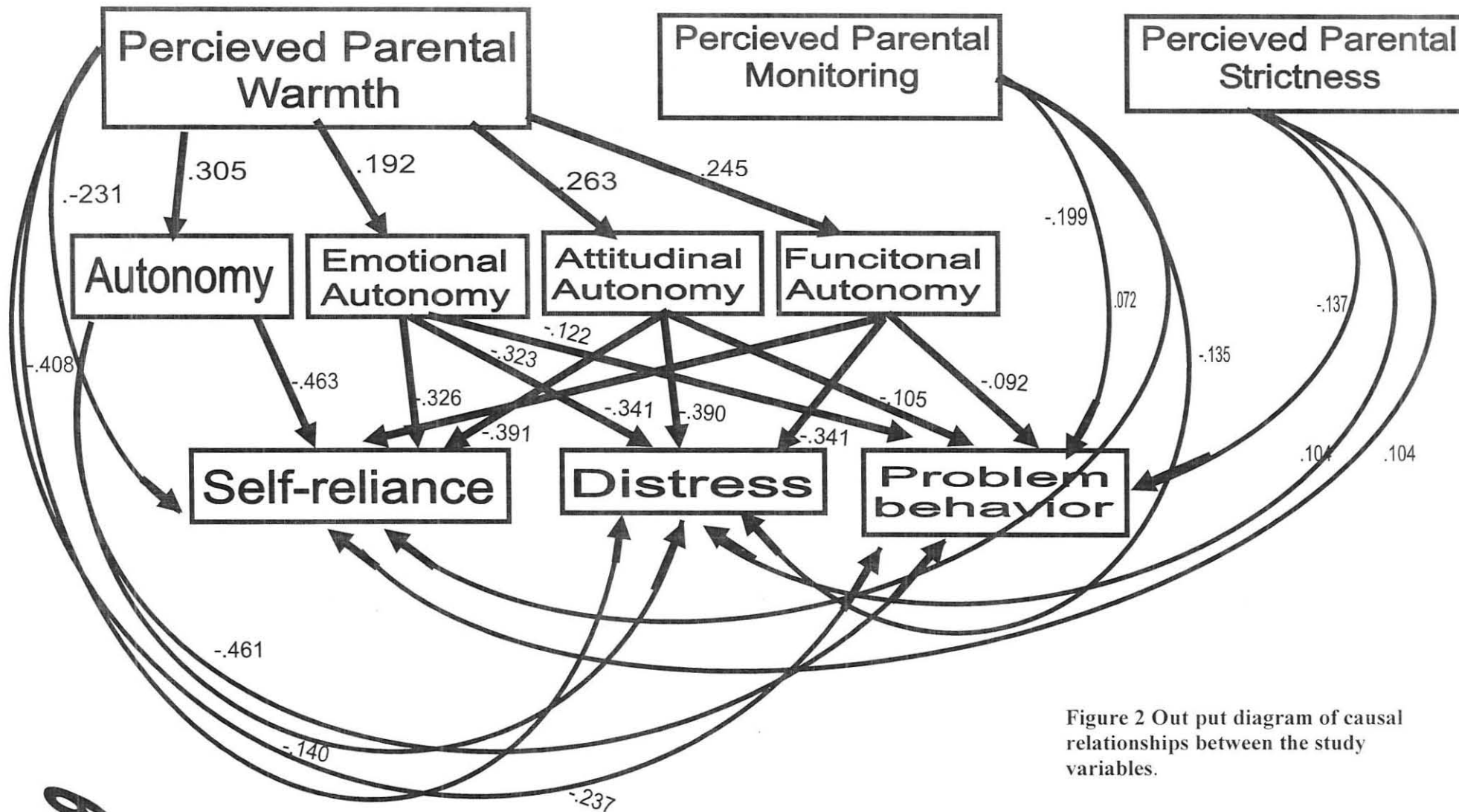


Figure 2 Out put diagram of causal relationships between the study variables.

CHAPTER FIVE

DISCUSSION

The findings concerning the magnitude, interrelationship, and causal effects of the study variables and the process in which these variables related to each other are discussed below.

5.1. The Degree and Relationship of Perceived Parent-Adolescent Relationships, Adolescents' Autonomy and Psychosocial Adjustment

The results of the current study revealed that the extent of perceived parental warmth, and monitoring, adolescents' attitudinal autonomy and adolescents' self-reliance were high. In other words, over 50% of the participants scored above the mean. In this study, variables that show negative correlations (perceived parental strictness, adolescents' distress and problem behavior) with adolescents' autonomy were below the average score by over half of the total participants. Moreover, below half of the respondents showed low level of emotional and functional autonomy. The results of this study are inconsistent with the hypothesis formulated and the literature reviewed on chapter one and two, i.e. during adolescence. Levine (1965), Cox (1967), Ringness and Gardner (1974), and Habtamu (1979, 1997) found that parental strictness is the dominant parenting behavior which is perceived by most of the respondents in their study. Moreover, Eccles and Fuligni (1993) noted that adolescents perceive their parents as strict in their relationship. This could be due to the gap in time of the other research findings that may create variations in knowledge of parenting behaviors among parents and differences in exposure to technological advancements (for example, education, mass media, etc) for both parents and

adolescents. Therefore, since the study was made in an urban setting, perceived parental strictness became lower than expected. For instance, studies of Levine (1965), Cox (1967), Ringness and Gardner (1974), and Habtamu (1979, 1997) were done in rural areas of Ethiopia. This implies that acquiring knowledge through the exposure to different Medias (TV, Radios, Megazines, etc) and education can facilitate the transformation of imbalanced parent-adolescent relationships into the cooperative relationship which in turn lower the development of adolescents' distress and involvement in problem behavior. Thus, based on the above findings, this study hypothesized that parents can be perceived as strict in their relationship with their adolescents. That is, parents may feel in control of their children's behavior if they apply strictness in their relationship with their adolescents. The result that shows lower parental strictness is substantiated by research results in other study sites of the country (relatively urban) that found parental warmth as a dominant relationship pattern of parents and adolescents (Berhanu, 1996; Markos, 1996; Abesha, 1997).

The analyses of inter-correlation between variables in the present study reveals that, perceived parental warmth and monitoring are significantly related positively to autonomy development and its component and psychosocial adjustment of adolescents. As expected, parental strictness is linked to difficulties in autonomy development and psychosocial adjustment of adolescents (self-reliance). The results further underscore the importance of perceived parental warmth and monitoring in the successful development of emotional, attitudinal, and functional autonomy and development of self-reliance. However, perceived parental strictness is related with higher problem behavior and distress in adolescents and with lower development of emotional and attitudinal autonomy. This results are also consistent with the findings of Cox (1967), and Ringness and Gander (1974) that report the association of strictness with lower level of reasoning ability and self reliance and higher susceptibility to problem behavior during

adolescence. Moreover, perceived parental strictness shows no relationship with functional autonomy of adolescents. This implies that the relationship between perceived parental strictness and autonomy could be in the cognitive and affective level than action level of autonomy. Noom et al., (1999) also suggested that adolescents' autonomy development appears to be related to negative thoughts about the self, but not to acting out behavior. It is therefore not surprising that parental warmth and monitoring are associated with all components of adolescents' autonomy development and self-reliance. The findings substantiate numerous studies (Rohner, et al., 2004; Conger, 1995; Santrock, 1999; Dekovic, 1999) about the buffering role of perceived parental warmth and monitoring. This implies that perceived parental warmth and monitoring remains an important resource for adolescence even though adolescents have more sources of support outside the family than primary school children do.

Furthermore, the results of the current study revealed that all aspects of autonomy are positively related to adolescents' self-reliance. In addition, all aspects of autonomy are negatively related to adolescents' problem behavior and distress, but functional autonomy shows no relationship with problem behavior. Contrary to the present finding, Steinberg and Silverberg (1986) and Furman and Holmbeck (1995) reported negative association between emotional autonomy and adolescents' self-reliance. The possible explanation for this inconsistency could be instrumental and conceptual variation. In other words, negative association could occur since autonomy is considered as detachment relationship with parents (low level of closeness and high level of emotional autonomy). Thus, adolescents perceive their parents as being unsupportive (lower feelings of lovability and feelings of insecurity with parents) so that adolescents showed a negative pattern of adjustment and competence. However, the present study considers emotional autonomy as adolescents' feeling of self-confidence on independently planning and deciding on issues.

5.2. The Direct Effect of Perceived Parent-Adolescent Relationships on Autonomy Development and Psychosocial Adjustment of Adolescents

According to the results of the present study, adolescents' problem behavior and distress were related to adolescents' perceptions of their parents as less warm, less monitoring, and stricter. In turn, as predicted, perceived parental warmth and monitoring were an important predictor of adolescents' higher self-reliance, fewer distress, and less likely to be involved in problem behaviors. These results are consistent with previous findings that strict interaction between parents and adolescents contribute to higher problem behavior and distress in adolescents (Barnes and Farrell, 1992; Fabes and Martin, 2000; Rohner et al., 2004; Dishion, 1991; Galambos and Maggs, 1991; Steinberg, 1986). Also, perceived poor parental monitoring and warmth were important predictors of adolescents' problem behavior (Barnes and Farrell, 1992). Moreover, Barnes and Farrell suggested that high monitoring and warmth are key socialization factors in the prevention of adolescents' problem behavior. This implies that perceived parental warmth and monitoring is found to be highly facilitative for the development of adolescents' self-reliance and perceived parental strictness will lead adolescents to be susceptible to problem behaviors and create higher distress.

If we see the proportion of variation of adolescents' self-reliance, problem behavior, and distress accounted for by perceived parent-adolescent relationships, perceived parental warmth took the highest proportion (12%, 7%, and 8%) relative to parental monitoring and strictness and next to it is perceived parental monitoring (3%, 5%, and 5%). The contribution of perceived parental warmth, monitoring, and strictness to the variation of adolescents' self-

reliance is significant ($F=55.8, 11.9, \text{ and } 24.8, P \leq .05$, respectively), to the variation of adolescents' distress is significant ($F=39.0, 22.38, \text{ and } 14.07, P \leq .05$, respectively), and to the variation of adolescents' problem behavior is significant ($F= 28.33, 20.34, \text{ and } 10.20, P \leq .05$, respectively). Even though there is significant contribution, these results imply that there are also other variables that contribute to adolescents' self-reliance, problem behavior and distress. All in all, the quality of perceived parent-adolescent relationship remains important in guiding adolescents' behavior choice and determining psychological health.

The present study also shows a significant prediction of perceived parent-adolescent relationships to adolescents' autonomy development. When we see the relationship of perceived parental warmth and parental monitoring with adolescents' attitudinal, emotional, and functional autonomy, there were positive significant relationships which is consistent with the stated hypothesis. These results corroborate with the results of earlier studies, which suggest that perceived parental warmth and monitoring are positive and significant predictors of adolescents' emotional autonomy (Beyers and Goossens, 1999; Noom et al., 1999). Overall, these results highlight the continued importance of perceived parental warmth and parental monitoring in facilitating adolescents' development of desirable characteristics, including autonomy and self-reliance. Hence, the results are also consistent with the suggestions given by Doyel and Moretti (2000) on specific parenting skills including warmth, acceptance of individuality, behavior monitoring and negotiation for the development of adolescents' autonomy. Choo (2004) also suggested that if there is lack of perceived parental warmth and monitoring in the relationship between parents and adolescents, it is found to impede the development of feelings of security, trust, self-reliance, and autonomy. Regarding perceived parental strictness, it has negative consequence on adolescents' psychosocial adjustment. If perceived parental strictness is high, there is an increase in adolescents' distress and problem behavior. However, there is no finding

to conform or disconfirm the results of this finding previously. Moreover, the result is contrary to the hypothesis formulated earlier. Thus, perceiving parental strictness on parent-adolescent relationship has no effect on the adolescents' functional autonomy development, but it has a negative influence on adolescents' attitudinal and emotional autonomy. In other words, perceived parental strictness will lead to lower development of adolescents' emotional and attitudinal autonomy. Hence, perceiving parents as strict hinders adolescents' development of autonomy.

5.3. The Influence of Adolescents' Autonomy and its Components on Adolescents' Psychosocial Adjustment

The results of this study showed that Adolescents' autonomy and its components are positive and significant predictors of adolescents' self-reliance and negative significant predictor of adolescents distress and problem behavior. In other words, autonomy predicts higher self-reliance, less distress, and less problem behavior in adolescents. Noom et al., (1999) contended that one of the most salient factors that affect adolescents' psychosocial adjustment is adolescents' autonomy. Contrary to this finding, Ryan and Lynch (1989) suggested that emotional autonomy (as measured by EAS) predicted higher levels of internal distress only (an internalized aspect of adjustment) and have no relationship with adolescents' problem behavior. Perhaps more probable explanation for the above findings could be conceptual difference of autonomy. That is, the negative consequences of adolescents' autonomy may show adolescents' perception of autonomy as radical disengagement from parents and this could occur only in a stressful parent-child relationships. Thus, in this case high emotional autonomy is maladaptive in supportive family conditions and adaptive in unsupportive family environment. Regarding

adolescents' attitudinal and functional autonomy there is no finding (to my knowledge) related to it. So this study could be the first to investigate the influence of adolescents' attitudinal, functional and emotional autonomy on adolescents' psychosocial adjustment. Moreover, adolescents' autonomy accounted for significant proportion of variance on adolescents' self-reliance, distress, and problem behavior. Thus, adolescents' autonomy could also serve as another important factor contributing for adolescents' psychosocial adjustment and the result confirms the hypothesis stated earlier.

5.4. Sex Difference in Perceived Parent-Adolescent Relationships, Autonomy Development and Psychosocial Adjustment of Adolescents

The results of the present study revealed that there is significant difference between male and female adolescents on attitudinal and functional autonomy and adolescents' problem behavior. In the three variables males are higher than female adolescents. However, in perceived parent-adolescent relationship males and females do not show significant variation and this is also similar on adolescents' development of emotional autonomy and self-reliance. This finding is in line with the contention that Doyel and Moretti (2000) made that there were more similarities than differences in the parenting of female and male adolescents. Inconsistent to this finding Steinberg and Silverberg (1986) reported that girls show higher levels of emotional autonomy than boys. Contrary to this, Beyers and Goossens (1999) found that males were more emotionally autonomous than girls. The reason to the present finding could be due to the developmental characteristics of adolescents that shows similar behavior across sex and the

difference could occur due to limitations in exposure to the wider social world of female adolescents. In other words, female adolescents are usually restricted in making decisions independent of their parents. Moreover, the opportunity to be exposed to problem behaviors is lesser for females than males.

5.5. Indirect Effect of Perceived Parent-Adolescent Relationships on Adolescents' Psychosocial Adjustment via Adolescents' Autonomy

The results of the present study disclosed that perceived parental warmth, parental monitoring, and parental strictness are related to adolescents' self-reliance and distress via adolescents' emotional, attitudinal, and functional autonomy. The result showed that perceived parental warmth and monitoring are positively associated with higher level of adolescents' self-reliance through adolescents' emotional, attitudinal, and functional autonomy. Moreover, perceived parental warmth and monitoring are related with low level of adolescents' distress through adolescents' attitudinal, emotional, and functional autonomy. However, perceived parental strictness was associated with lower level of adolescents' self-reliance and it was also associated with higher level of adolescents' distress through adolescents' emotional, attitudinal, and functional autonomy. This implies that perceived parent-adolescent relationships have mediated effect on adolescents' self-reliance and distress through adolescents' autonomy. Thus, the present study is consistent with the hypothesis and this may add information to the existing literature. Thus, the results of this study are consistent with Beyers and Goossens (1999) who found a slightly significant interaction in the model predicting adolescents' self-reliance by perceived parent-adolescent relationships and emotional autonomy. However, this result is inconsistent with Furman and Holmbek's (1995) finding that when perceived parental warmth

and monitoring was low, emotional autonomy predicted higher levels of adolescents' self-reliance. When parental quality was high, however, emotional autonomy was associated with less self-reliance. Contrary to this, the present study showed satisfactory result that confirms with the hypothesis stated and also the result implies that adolescents' autonomy function as adaptive developmental characteristics. Moreover, regarding adolescents' problem behavior, adolescents' autonomy did not mediate the relationship between perceived parent-adolescent relationship and adolescents' problem behavior. This implies that adolescents' autonomy has more effect on internalized problem behaviors than acting out behavior problems.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1. Conclusion

The following conclusions are drawn based on the results found in this study.

1. The results of this study revealed that over 50% of the participants perceive higher parental warmth and parental monitoring in their parent-adolescent relationships. Moreover, they show higher attitudinal autonomy and higher self-reliance.
2. The findings of this study disclosed that perceived parent-adolescent relationships are significant and are positive predictors of adolescents' self-reliance. Moreover, they are also negative and significant predictors of adolescents' distress and problem behavior. However, perceived parental strictness is a positive significant predictor of adolescents' problem behavior and distress and also a negative significant predictor of self-reliance.
3. Perceived parental warmth and parental monitoring are positive and significant predictors of adolescents' emotional, attitudinal, and functional autonomy. Furthermore, perceived parental strictness is negative and significant predictor of adolescents' emotional and attitudinal autonomy. Adolescents' functional autonomy has no relationship with perceived parental strictness.

4. Adolescents' autonomy development has a positive and significant relationship with adolescents' self-reliance. Moreover, as adolescents' autonomy increase, their involvement in problem behavior was lower.
5. There is a difference in male and female adolescents in the development of attitudinal, functional autonomy, and self-reliance.
6. In this study, adolescents' autonomy mediates the relationship between adolescents' self-reliance, distress and perceived parental warmth, monitoring, and strictness.

6.2. Recommendations

Based on the findings of the present study, suggestions about the practical implications and further investigations are presented below.

- The results have implications for effective parenting. That is, community and/or school-based parenting training needs to be conducted in ways to improve parental strictness behavior that hinders adolescents' autonomy development and self-reliance. Furthermore, parental awareness about the need to support adolescents in their exploration of social norms by listening to concerns about social approval and peer pressure, discussing values and reasons for limit setting, and negotiating rules when appropriate. Hence, parents need to be available to their adolescents, support and actively engage in negotiation of increased autonomy and self-reliance.
- The selected variables in the present study were limited. Apparently, these may not be the only variables that could have important impact on the psychosocial development of

adolescents. Moreover, assessment of variables was also limited to adolescents' perception of their parents' behavior and self-reports of their own behavior. Thus, to verify the present study as a whole, further research is required. For this, including variables other than the present study (e.g. perceived parental warmth, monitoring, and strictness and psychosocial outcomes) is important. Considered such variables as peer influence, socio-economic status, parental negative life events in investigating the relationship between adolescent outcomes and parent using multi-method assessment procedures. Hence, the researcher recommends further study for inculcating desirable behavior and preventing undesirable behavior in young adolescents.

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APPENDICES

Appendix- A

ADDIS ABABA UNIVERSITY SCHOOL OF GRADUATE STUDIES QUESTIONNAIRE

This questionnaire is designed to measure how perceived parent-adolescent relationships affect the development of autonomy and psychosocial adjustment in adolescents. To accomplish this task your willingness and cooperation are highly required. Hence, you are kindly requested to give your genuine response for each item. At the onset, I would like to assure you that whatever has been said will be kept confidential and there is no need to write your name.

Thank you very much, in advance, for your cooperation to provide your authentic response to all items frankly and honestly.

Part one: Background information

Direction: Please supply the right information for the following items either by circling the letter of your choice or by filling the blank spaces.

1. Grade level A. 9th B. 10th C. 11th D. 12th
2. Sex A. Male B. Female
3. With whom are you currently living?
A. Only with my mother
B. Only with my father.
C. Both my mother and father
D. With my relatives.
E. Other (Specify) _____.

Part Two: Items on Perceived Parent-Adolescent Relationships

Direction: Below are given items supposed to describe adolescents' relationship with parents as reported by adolescents. Therefore, after reading each of the following items carefully, put a tick (✓) mark on the box that you think best describes the way your mother and your father exercised warmth, strictness, and supervision in their relation with you. There are separate boxes for each of your mother's and your father's behavior.

Perceived Parental Warmth		Very True	True	Some what true	Not at all true
1.	My parents express strong feelings of love and affection for me.				
2.	My parents put time and energy into helping me.				
3.	My parents give a lot of care and attention.				
4.	My parents tries to reach a compromise when we disagree				
5.	My parents are often disapproving me.				
6.	My parents make me feel like a burden.				
7.	My parents don't seem to think of me often.				
8.	I can count on my parents to help me out, if I have some kind of problems.				
Perceived Parental Monitoring					
1.	My parents try to know what I do with my free time.				
2.	My parents tell me what time to be home when I am out.				
3.	My parents insist that I get permission first before I go to my friends or to some other entertainment.				
4.	My parents want to know whatever I do.				
5.	My parents would not care to know if I spent the whole day out.				
6.	My parents try to know the behavior of my friends by asking me questions.				
7.	My parents are interested in knowing my engagement in smoking and sexual activity.				
Perceived Parental Strictness					
1.	My parents want me to follow her decision even if I disagree with her reason.				
2.	My parents get upset if I disagree with her.				
3.	My parents give me an opportunity to give my ideas and opinions even if we might disagree.				
4.	When I am with my parents, I feel controlled and pressured to certain ways.				
5.	My parents want me to accept her opinions without questioning.				

Part three: Adolescents' Autonomy Development
Questionnaire

Directions: Below are given items for adolescents self-report of the extent of their development of autonomy. So read each of the following items carefully and put a tick (✓) mark on the boxes of your choice on how true you think that describes your own behavior.

Attitudinal Autonomy		Very True	True	Some what true	Not at all true
1.	I find it difficult to decide what I want.				
2.	I can make a choice easily.				
3.	I often don't know what to think.				
4.	When people ask me what I want, I immediately know the answer.				
5.	I often hesitate about what to do.				
Emotional Autonomy					
1.	When I act against the will of others, I usually get nervous.				
2.	I have a strong tendency to comply with the wish of others.				
3.	When I disagree with others, I tell them.				
4.	I often agree with others, even if I am not sure.				
5.	I often change my mind after listening to others.				
Functional Autonomy					
1.	I go straight for my goal.				
2.	I find it difficult to start a new activity on my own.				
3.	I am courageous to try new things on my own.				
4.	I am an adventurous person.				
5.	I quickly feel at ease in a new situation.				

Part Four: Items on Adolescents' Psychosocial Adjustment.

Direction: For each of the following statements put a tick (√) mark that best describes your feelings and behaviors in the past six months and at the present time.

Adolescents' Self-reliance		Very true	True	Some what true	Not at all true
1.	Luck decides most of things that happen to me.				
2.	All in all, I am inclined to feel that I am a failure.				
3.	I feel that I can accomplish the things that I want to.				
4.	If a thing goes wrong on what I am doing, there is little I can do to correct it.				
5.	I certainly feel useless at times.				
6.	I have plenty of confidence in my decisions.				
7.	I get very upset if someone criticizes me.				
Internal Distress					
1.	I felt fearful about my future life.				
2.	I had trouble on concentrating on what I was doing.				
3.	I felt lonely.				
4.	I was bothered by things that usually don't bother me.				
Adolescents Problem Behaviors					
1.	Disobedient at home and at school.				
2.	Getting into physical fight at school.				
3.	Truant from school without good reason.				
4.	Used dirty words out loud in school so other people would hear me.				
5.	Used to chew "chat"				
6.	Drink local "tella" and "areke".				
7.	Smoked cigarette.				

Appendix- B

በአዲስ አበባ ዩኒቨርሲቲ የድህረ ምረቃ ፕሮግራም የሣይኮሎጂ ክፍል መጠይቅ

የዚህ መጠይቅ አላማ ወጣት ልጆች ከቤተሰቦቻቸው ጋር ያላቸውን ግንኙነት እንዴት የወጣት ልጆችን በራስ የመገዛት እድገትና የማህበራዊ እና የስነ ባህሪ አለማመዳቸው ላይ ተፅዕኖ እንደሚያመጣ ለማወቅ የሚረዳ ነው። ለጥናቱ አላማ መሣካት ፍቃደኝነታችሁ እና ትብብራችሁ አስፈላጊ ከመሆኑ የተነሣ ለእያንዳንዱ አርፍተ ነገር እውነታዊ ምላሻችሁን ትሰጡ ዘንድ በትህትና ትጠየቃለን።

በቅድሚያ በመጠይቁ ላይ የሚሰፍሩት ምላሾች ሁሉ ለጥናትና ምርምር ጉዳይ ብቻ የሚውል እና በሚሰጥር የሚያዝ ስለሆነ ስማችሁን መጻፍ አስፈላጊ አይደለም።

ለተጠየቁት ጥያቄዎች መልሶቻችሁን በታማኝነትና በእውነታ ለመስጠት ስለተባበራችሁ በቅድሚያ አመሰግናለሁ።

ክፍል አንድ :- አጠቃላይ መረጃ

መመሪያ :- ከዚህ በታች ለቀረቡት ጥያቄዎች ትክክለኛውን ምላሽ በክፍት ቦታ በመጻፍ እና ምርጫ ለተሰጣቸው በማክበብ መልሶቻችሁን ስጡ።

1. የክፍል ደረጃ
2. ዕድሜ 1. 12 ዓመት እና በታች 2. ከ13 — 14 ዓመት 3. ከ15 — 16 ዓመት
 4. ከ17 — 18 ዓመት 5. ከ19 — 20 ዓመት 6. 21 እና በላይ ዓመት
3. ፆታ 1. ሴት 2. ወንድ
4. በአሁኑ ወቅት ከማን ጋር ነው የምትኖሪው/ረው? 1. ከእናቱ ብቻ 2. ከአባቱ ብቻ
 3. ከሁለቱም 4. ከዘመዶቹ 5. ሌላ ካለ ይገለፅ

ክፍል ሁለት :- የወጣት ልጆች እና ቤተሰቦች ግንኙነት በወጣት ልጆች አመኔታ እና ግምት ሲገለፅ

መመሪያ:- ከዚህ በታች ያሉት አርፍተ ነገሮች ከልጆችና በቤተሰቦቻቸው መካከል ያሉ የግንኙነት አይነቶችን የሚገልፅ ሲሆን እያንዳንዱን አርፍተነገር ካነበባችሁ በኋላ ከወላጆቻችሁ ጋር ያለው ግንኙነት ይገልጻል ብላችሁ በምታስቡበት ሣጥን ትይዩ የ ✓ ምልክት አስቀምጡ።

Appendix- C

Formula to Calculate Sample Size

Krejcie and Morgan (1970) published a formula for an efficient method of determining a representative sample size of a given population by using the following formula.

$$S = \frac{X^2NP(1-P)}{D^2(N-1) + X^2P(1-P)} \quad \text{where, } S = \text{required sample size}$$

$X^2 =$ the table value of 95% confidence interval
 $P =$ the population proportion assuming .05 for it provides the maximum sample size.
 $D =$ tolerable error amount.

Hence, in this study $X^2 = (1.96)^2$, $N = 7076$, $D = 0.05$, $P = 0.05$

$$S = \frac{(1.96)^2 (7076) \times 0.5(0.5)}{(0.05)^2(7076-1) + (1.96)^2 0.25} = 364$$

Appendix-D

Item Analysis of scales in pilot study

Correlations

Parental Warmth

		Total
WAR 1	Pea. Corr.	.687**
	S. g.	.000
WAR 2	Pea. Corr.	.710**
	S. g.	.000
WAR 3	Pea. Corr.	.716**
	S. g.	.000
WAR 4	Pea. Corr.	.846**
	S. g.	.000
WAR 5	Pea. Corr.	.539**
	S. g.	.000
WAR 6	Pea. Corr.	.671**
	S. g.	.000
WAR 7	Pea. Corr.	.844**
	S. g.	.000
WAR 8	Pea. Corr.	.651**
	S. g.	.000
WAR 9	Pea. Corr.	.650**
	S. g.	.000
Total	Pea. Corr	1.000
	S.g.	.
N	40	

Reliability coefficients Not cases = 40.0

Alpha = .870

N of Items = 9

Parental Strictness

		Total
Stri 1	Pea. Corr.	.812**
	Sig	.000
Stri 2	Pea. Corr.	.502**
	Sig	.000
Stri 3	Pea. Corr.	.671**
	Sig	.000
Stri 4	Pea. Corr.	.660**
	Sig	.000
Stri 5	Pea. Corr.	.682**
	Sig	.000
Total	Pea. Corr.	.1.000
	Sig	.
N	40	

Reliability Coefficients

N of cases = 40.0

N of items = 5

Alpha = 0.6834

Attitudinal Autonomy

		Total
Att 1	Pea. Corr.	.704**
	Sig.	.000
Att 2	Pea. Corr.	.654**
	Sig.	.000
Att 3	Pea. Corr.	.757**
	Sig.	.000
Att 4	Pea. Corr.	.541**
	Sig.	.000
Att 5	Pea. Corr.	.694**
	Sig.	.000
Total	Pea. Corr.	1.000
	Sig.	.000
No	40	

Reliability Coefficients

N of cases = 40.0

N of items = 5

Alpha = 0.6887

Parental Monitoring

		Total
Mon 1	Pea. Corr.	.629**
	Sig	.000
Mon 2	Pea. Corr.	.593**
	Sig	.000
Mon 3	Pea. Corr.	.521**
	Sig	.001
Mon 4	Pea. Corr.	.688**
	Sig	.000
Mon 5	Pea. Corr.	.541**
	Sig	.000
Mon 6	Pea. Corr.	.632**
	Sig	.000
Mon 7	Pea. Corr.	.581**
	Sig	.000
Total	Pea. Corr.	1
	Sig	.
N	40	

Reliability Coefficients

N of Cases = 40.0

N of Items = 7

Alpha = 6920

Emotional Autonomy

		Total
Emo 1	Pea. Corr.	.601**
	Sig.	.000
Emo 2	Pea. Corr.	.774**
	Sig.	.000
Emo 3	Pea. Corr.	.511**
	Sig.	.000
Emo 4	Pea. Corr.	.704**
	Sig.	.000
Emo 5	Pea. Corr.	.545**
	Sig.	.000
Total	Pea. Corr.	1.000
	Sig.	.
N	40	

Reliability Coefficients

N of cases = 40.0

N of items = 5

Alpha = 0.7054

Functional Autonomy

		Total
Fun 1	Pea. Corr.	.703**
	Sig	.000
Fun 3	Pea. Corr.	.836**
	Sig	.000
Fun 4	Pea. Corr.	.694**
	Sig	.000
Fun 5	Pea. Corr.	.775**
	Sig	.000
Total	Pea. Corr.	.1.000
	Sig	
N	40	

Reliability Coefficients

N of cases = 40.0

N of items = 5 Alpha = 0.7990

Problem Behavior

		Total
Prob 1	Pea. Corr.	.506**
	Sig	.000
Prob 2	Pea. Corr.	.736**
	Sig	.000
Prob 3	Pea. Corr.	.722**
	Sig	.000
Prob 4	Pea. Corr.	.686**
	Sig	.000
Prob 5	Pea. Corr.	.630**
	Sig	.000
Prob 6	Pea. Corr.	.810**
	Sig	.000
Prob 7	Pea. Corr.	.595**
	Sig	.001
Total	Pea. Corr.	1.000
	Sig	
N	40	

Reliability Coefficients

N of cases = 40.0

N of items = 7 Alpha = 0.7885

** Correlation is Significant at 0.01 level (2-Tailed)

* Correlation is Significant at 0.05 Level (2-Tailed)

Distress

		Total
Dis 1	Pea. Corr.	.208
	Sig	.198
Dis 3	Pea. Corr.	.439**
	Sig	.005
Dis 4	Pea. Corr.	.721**
	Sig	.000
Dis 5	Pea. Corr.	.773**
	Sig	.000
Total	Pea. Corr.	1.000
	Sig	
N	40	

Reliability Coefficients

N of cases = 40.0

N of items = 5 Alpha = 0.657

Self Reliance

		Total
Rel 1	Pea. Corr.	.657**
	Sig	.000
Rel 2	Pea. Corr.	.620**
	Sig	.000
Rel 3	Pea. Corr.	.511**
	Sig	.000
Rel 4	Pea. Corr.	.697*
	Sig	.000
Rel 5	Pea. Corr.	.740**
	Sig	.000
Rel 6	Pea. Corr.	.549**
	Sig	.000
Rel 7	Pea. Corr.	.715*
	Sig	.000
Total	Pea. Corr.	1.000
	Sig	
N	40	

Reliability Coefficients

N of cases = 40.0

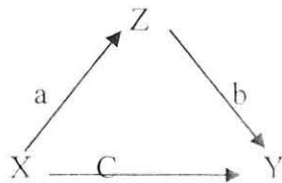
N of items = 5

Alpha = 0.6975

Appendix- E

Testing Mediation with Regression Analysis

Mediation is a hypothesized causal chain in which one variable affects a second variable that, in turn, affects a third variable. The intervening (mediator) variable accounts for the relationship between a predictor and the dependent variable. The intervening variable, Z , is the mediator that mediates the relationship between a predictor, X , and an outcome, Y . Graphically, mediation can be depicted in the following way:



Path a and b are called direct effects. The mediational effect in which X leads to Y through Z is called the indirect effect. The indirect effect represents the portion of the relationship between X and Y that is mediated by Z . Generally, to test for mediators, one can begin by estimating four regression equations:

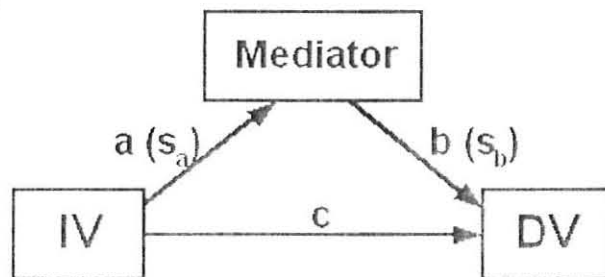
1. Conduct a regression analysis with X predicting Z to test for path a .
2. Conduct a regression analysis with X predicting Y (path c).
3. Conduct a regression analysis with Z predicting Y to test the significance of path b .
4. Conduct a regression analysis with X and Z predicting Y .

To begin with, we must have significant relationships found for equation (1), (2), and (3). Then, if the effect of X on Y decreases dramatically when the mediator is present (e.g., its effect becomes non-significant), then the independent variable can affect the dependent variable via the mediator.

Appendix- F

Formula to Calculate Test of Significance for Mediated Effects

In examining possible mediation, the Sobel test (cited in Kenney, 2003) offers a significance test in which a z-score is calculated such that we can determine whether the indirect effect of the independent variable on the dependent variable by means of the mediator is significantly different from zero. To do this two regressions are required. These are: (1) the mediator predicted by the independent variable and (2) the dependent variable predicted by the mediator and independent variable. Then, given the output of the regression equations (1) and (2) above we have all we need to calculate the statistic. Calculate a , which equals to the unstandardized coefficient of the independent variable when predicting the dependent variable by itself, and its standard error s_a . From the equation (2) take the unstandardized coefficient b for the mediator and its standard error s_b . To obtain the statistic, input those calculations in the following variant of the Sobel's original formula:



Description of numbers needed

a = raw (unstandardized) regression coefficient for the association between IV and mediator.

s_a = standard error of a .

b = raw coefficient for the association between the mediator and the DV (when the IV is also a predictor of the DV).

s_b = standard error of b . SQRT = square root of

Formulae for the tests provided here were drawn from MacKinnon & Dwyer (1994) and from MacKinnon, Warsi, & Dwyer (1995):

Sobel test equation

$$z\text{-value} = a*b/\text{SQRT}(b^2*s_a^2 + a^2*s_b^2)$$

Aroian test equation

$$z\text{-value} = a*b/\text{SQRT}(b^2*s_a^2 + a^2*s_b^2 + s_a^2*s_b^2)$$

Goodman test equation

$$z\text{-value} = a*b/\text{SQRT}(b^2*s_a^2 + a^2*s_b^2 - s_a^2*s_b^2)$$

The Sobel test equation leaves out the third term of the variance estimate in the denominator. We recommend using the Aroian version of the Sobel test suggested in Baron & Kenny (1986) because it does not make the unnecessary assumption that the product of s_a and s_b is vanishingly small. The Goodman version of the test subtracts the third term for an unbiased estimate of the variance of the mediated effect, but this can sometimes have the unfortunate effect of yielding a negative variance estimate.

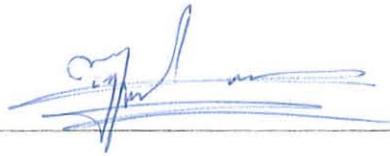
To conduct the Sobel test

Details can be found in Baron and Kenny (1986), Sobel (1982), Goodman (1960), and MacKinnon, Warsi, and Dwyer (1995). Insert the a , b , s_a , and s_b into the cells below and this program will calculate the critical ratio as a test of whether the indirect effect of the IV on the DV via the mediator is significantly different from zero.

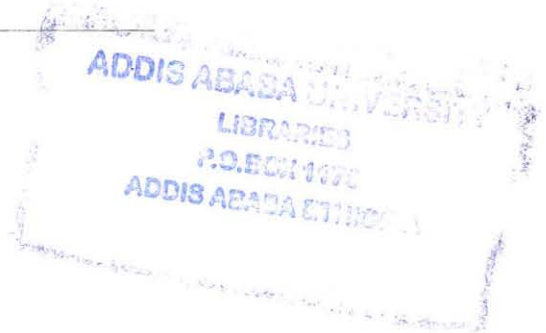
	Input:	Test statistic:	p-value:
a	<input type="text"/>	Sobel test:	<input type="text"/>
b	<input type="text"/>	Goodman (I) test:	<input type="text"/>
s_a	<input type="text"/>	Goodman (II) test:	<input type="text"/>
s_b	<input type="text"/>	<input type="button" value="Reset all"/>	

Declaration

This thesis is my original work, has not been presented for a degree in any other university and that all sources of materials used for the thesis have been duly acknowledged.



Martha Medhanie



This thesis has been submitted for examination with my approval as University advisor.



Professor Tilahun Sineshaw