THE TELEPHONE YEARS:

The Relationship Between Adolescent Telephone Use and Parent-Adolescent Conflict

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"Daedalus the wise and skilled craftsman constructs wings of wax and feathers by which both he and his son can escape from their tower prison. The father carefully instructs Icarus on the proper use of the wings and tearfully kisses him before they both set out on their flight to freedom, a flight that ends fatally for Icarus who impetuously disobeys his father and flies too close to the sun, melting the wax and plunging the boy into the ocean. If one side of the moral of this story is that to disobey one's parents may have disastrous, even fatal consequences, the other side is that the young must discover this for themselves. Thus the conflict - life must be experienced and the knowledge of the old may serve as only a partial guide for the young, to the continual dismay of parents."
(Montemayor, 1990, p. 130)

ABSTRACT

While almost no published research has been completed on adolescent telephone use, it has been found that adolescents report their telephone use to be an area of conflict with their parents. Data was collected from 160 adolescent high school students aged around 14 years and some (88) of their parents/caregivers, using a questionnaire designed by the researcher. The results showed that female adolescents had more telephone use and more parent-adolescent conflict than did male adolescents. Both males and parents of both males and females reported that telephone use was strongly related to parent-adolescent conflict, but female adolescents did not report such a relationship. We can conclude that telephone conflict is seen in males, but is only a source of conflict in females as viewed by parents. Further, when males use the telephone it is correlated with the independence they desire, but telephone use has no parallel relationship with independence for females. However, high adolescent telephone use is related to the control a parent would like to have over the telephone, most especially for female telephone users. When females were independent and parents wanted to control their daughters telephone use, conflict levels were high. In contrast, conflict levels were high for parents and their sons when males wanted independence because parents had control of their telephone use.

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CHAPTER ONE

INTRODUCTION

Adolescence

Adolescence is a time characterised by considerable change. It is the stage in an individual's life between childhood and adulthood, involving changes of a biological, psychological and sociological nature (Kaplan, Sadock & Grebb, 1994). The transition throughout adolescence is one of the most rapid within the developmental life-span, second to the transformations experienced in infancy (Smetana, Yau, Restrepo & Braeges, 1991a).

Three different phases of adolescence are usually recognised. These are commonly known as early (11-14 years), middle (14-17 years) and late (17-20 years) adolescence. However, the modifications during adolescence are diverse and vary for each individual. Sometimes physical growth, also known as puberty, and psychological and social development may not occur at the same time. Therefore, these three stages of adolescence are subjective (Kaplan, Sadock & Grebb, 1994).

As well as the biological, psychological and social changes occurring during adolescence, an adolescent individual also develops the mature forms of behaviour, emotions and thought processes needed for adulthood. However, an adolescent often does not have the maturity skills needed to deal with these rapid changes. It is for this reason that many adolescents experience a degree of stress during this period, which has been referred to as 'transitional stress' (Montemayor, 1990).

Adolescence is often encompassed by disagreements within the family environment, due to the fact that the transition from childhood to adolescence not only involves changes within the individual, but also a shift in family relationships (Steinberg, 1987). Another important aspect of adolescence is that peers become increasingly important and the influence of the family weakens, during which time the adolescent individual gains independence (Poole & Gelder, 1984).

During such time as the adolescent adjusts to the biological and psychosocial changes, the parent-child relationship also endures a number of changes (Smetana, 1988). Conflict with parents has been found to increase during early adolescence, remain

relatively stable during middle adolescence, and decrease during late adolescence (Montemayor, 1990). This decrease in parent-adolescent conflict may either be related to the adolescent's ability to acknowledge and understand the point of view of their parents, or parents gradually conceding to their offspring (Silverberg, Tennenbaum & Jacob, 1992).

Conflict between parents and their offspring during the adolescent years has been a topic of interest for researchers over the years. This chapter will firstly examine the literature on parent-adolescent conflict. Specifically, the focus will be on parent-adolescent conflict during early adolescence (11-14 years). As will be described in the literature, conflict during these stages of adolescence is predominantly over everyday topics. Subsequently, the paper will examine the literature on adolescent independence, and following this, parental control. The final section of the introduction will outline the current study and hypotheses.

Parent-Adolescent Conflict

Conflicts and arguments are the leading complaints from parents, regarding interaction with their adolescents (Montemayor, 1986). Collins and Steinberg (1990, cited by Silverberg et al., 1992) suggest that, regardless of the conflict, parent-child relations during adolescence make important adjustments, rather than dramatic changes. Disagreement is inevitable in any close relationship, and a moderate amount of conflict within the parent-adolescent relationship may help in promoting adolescent independence and identity exploration (Atwater, 1992).

Conflict within the parent-adolescent relationship has been considered as healthy and adaptive for adolescents, when viewed in a developmental context (Demo, 1991). Hill and Holmbeck (1986, cited by Silverberg et al., 1992) refer to such conflicts as bickering and squabbling over everyday topics. Continuously high levels of parent-adolescent conflict may be associated with a number of adolescent psychosocial problems (Montemayor, 1990; Collins & Laursen, 1992). However, these type of problems, that are not related to the normal adolescent 'transitional stress', often begin during childhood (Montemayor, 1990).

Montemayor and Hanson (1985) reported two conflicts every three days in a study of adolescent individuals and their families. Montemayor (1982) found that females had

more conflicts with their parents than did their male counterparts, 58.8% and 41.2% respectively. In contrast, Laursen (1989, cited by Collins & Laursen, 1992; Laursen & Collins, 1994) suggests that adolescents report an average of seven daily disagreements. However, this included disagreements with other individuals as well as parents.

A longitudinal study by Galambos and Almeida (1992) found that parents reported higher levels of conflict than adolescents. In comparison, Smetana (1988) discovered adolescents reported more conflicts than parents, and parents reported getting along better with adolescents than did adolescents with parents. A further study by Smetana (1991) found that adolescents rated conflicts as both more severe and frequent, in comparison to their mothers. The differences of opinion between the two researchers may be due to the data collection procedures used within the studies. The results of the study conducted by Galambos and Almeida were conclusive from data collected at four different intervals over a two year period, whereas the results of the studies by Smetana were found at the time of the study.

A consistent finding across much of the research indicates that the greatest amount of parent-adolescent conflict occurs during early adolescence, 11-14 years (Small, Eastman & Cornelius, 1988). Collins and Laursen (1992) state that the occurrence and intensity of conflict is predominate during early adolescence because of both puberty and social transitions during this time. Montemayor (1990) suggests that adolescent conflict and age are related in an inverted U-shaped form, hence conflict increases during early adolescence, remains stable during middle adolescence and decreases during late adolescence.

A study by Smetana (1991), involving adolescents and their mothers as subjects, found that conflict was more frequent in families with younger adolescents. Ellis-Schwabe and Thornburg (1986) researched a large group of adolescents and found that the greatest amount of parental conflict was reported by 14 year olds. The study only included adolescent perceptions of conflict and not parental perceptions. Although the results of the two studies are consistent, the latter study should be viewed with caution, as parental reports were not taken into consideration.

Galambos and Almeida (1992) found that parent-adolescent relations did change during early adolescence. Although the majority of research implies that these changes include an increase in conflict, Galambos and Almeida found that conflict during this time decreased. However, this conclusion made by Galambos and Almeida is implied

to the general pattern of conflict, as opposed to specific domains of conflict, and it is for this reason that their results may contradict other studies. Further limitations placed on the results of Galambos and Almeida's study include the lack of a representative sample. Adolescent subjects (n = 112) were from predominantly white families, with both parents receiving an income. Therefore, the participants did not represent all the characteristics of the population under investigation.

In general, most conflicts occur between mothers and adolescents rather than with fathers and adolescents. A study by Montemayor (1982) found that adolescents reported 75% of conflicts with their mothers, as opposed to 25% with their fathers. Further, Montemayor's study revealed that the majority (85%) of conflicts were between mothers and daughters. The mother-son relationship was also high in conflict but they did not share the same amount of activities than did mothers and daughters. Further, Steinberg (1987a) found that father-daughter relations have a low level of interaction.

Research by Montemayor and Hanson (1985) demonstrated that conflict was highest for the mother-adolescent relationship, and lowest for the father-adolescent relationship. The researchers suggest that the reason for this is that each parent plays a different role in the lives of the adolescent, with mothers having a greater involvement. Similarly, Smetana (1988) found that adolescents reported 52% of their conflicts with both parents, 35% with only mothers and 14% with fathers alone. It is proposed mothers are more likely to regulate the daily activities within family life and hence, experience more conflict. Adolescent girls were found to have a greater number of conflicts in general.

Ellis-Schwabe and Thornburg (1986) reported female adolescents to be in conflict with their mothers twice as often as their male counterparts. Both sexes were equally often in conflict with their fathers. It is suggested that fathers are concerned with topics that affect the adolescent's preparation for adulthood, whereas mothers are more concerned about areas of a personal nature. However, Galambos and Almeida (1992) found that adolescents were equally likely to be in conflict with both parents, as reports of conflict did not differ significantly. Galambos and Almeida state that they could have found adolescents to have more conflict with their mothers than fathers, as did the above researchers, had they obtained separate reports from adolescents when parent-adolescent conflict was highest, earlier on in the study.

In order to understand the conflict experienced between parents and adolescents , it is important to understand conflict. Researchers have proposed theories that suggest conflict between parents and adolescents is inevitable and essential for the survival of humanity. The following theories seek to provide explanations for the conflict that occurs within parent-adolescent dyads.

Theoretical Perspectives on Parent-Adolescent Conflict

Psychoanalytic Perspective

Sigmund Freud and Anna Freud believed that with the physiological changes experienced during puberty, intra-psychic conflicts that had been repressed since childhood were activated. These conflicts included an unconscious fascination with the parent of the opposite sex, and feelings of ambivalence towards the same sex parent. The activation of such sexual impulses causes intra-psychic turmoil within the adolescent, and also makes it hard for the individual to continue their emotional attachment to either parent. Freud suggested that this intra-psychic turmoil is not dealt with by the adolescent, and instead is expressed through rebelliousness, disagreement within the home and detachment from parents (Silverberg et al., 1992).

Psychoanalytic theorists believe that the emotional upheaval experienced is necessary for the adolescent to develop autonomy and separation from parents. Anna Freud believed that the conflict experienced between adolescents and their parents was important for the adolescent to develop relationships outside of the family. An adolescent who did not experience emotional turmoil and conflict with parents was observed with concern, and it was assumed that the normal process of development was not taking place. Anna Freud also considered an individual who remained emotionally balanced during adolescence as 'abnormal' (Silverberg et al., 1992; Cobb, 1995).

Evolutionary Perspective

Evolutionary theories propose that changes within the parent-adolescent relationship are due to biological maturation. Here, the belief is that puberty increases conflict between parents and adolescents and for this reason, adolescents begin to focus on peer relationships. Adolescent contact with peers encourages individuals to mate with those outside of the immediate family (Laursen & Collins, 1994). Therefore, males,

the sex that leaves the natal group, should exhibit more conflict than females who form permanent bonds with their mothers and sisters and stay in the natal group.

Steinberg (1987) suggested that parent-adolescent conflict might be the result of biological mechanisms, which are found across all primate species, and cause distancing between parents and adolescents. Laurence Steinberg states that chimpanzees, which are the close biological relatives of human beings, emigrate during adolescence. Female adolescent chimpanzees only, leave their natal group after puberty and find another community in which to mate. The chimpanzee family structure is different to that of the human being family, and as a comparison, Steinberg explains the emigration of the adolescent gibbon, which has a family organisation similar to that of the human.

Gibbons live in monogamous family units and both the male and female gibbon emigrate once they reach adolescence. If they do not emigrate voluntarily, they are thrown out soon after puberty. Steinberg reports that this prevents inbreeding and enhances genetic difference. Correspondingly, studies of monkeys and apes show that remaining within the natal group may impede pubertal development (Steinberg, 1987).

With such studies, Steinberg (1987) maintains that parent-offspring conflict heightens during adolescence and that this concept may have an evolutionary basis. Conflict may serve to ensure that human individuals leave the family home and eventually procreate outside of this.

Cognitive-Developmental Perspective

From a cognitive-developmental perspective, intellectual maturation has been suggested to bring about changes within the parent-adolescent relationship. In this respect, the adolescent experiences a greater understanding of the self and associated relationships. Here, a cognitive reorganisation of the self is thought to generate conflict between the adolescent and parent (Laursen & Collins, 1994).

Smetana (1988) found that parent-adolescent conflict resulted in changes of individual perceptions of the relationship, with both parents and adolescents interpreting their relationship differently. As adolescents gained cognitive maturation, certain areas usually perceived under parental control were now regarded by adolescents as subject to their personal decision.

The theories of conflict propose that conflict between parents and adolescents is inevitable, and further, evolutionary theory states that conflict is essential for the survival of humanity. Research has found that there are specific areas which are related to the conflict experienced within the parent-adolescent dyad. Many areas of conflict between parents and adolescents have been investigated in research, with only a minimal focus on parent-adolescent conflict over the telephone. The following section will review the research on the areas of conflict between parents and their adolescent offspring.

Areas of Conflict Between Parents and Adolescents

Parents and adolescents tend to argue over mundane, everyday matters that are inclined to effect day to day living. The majority of conflicts during early adolescence appear to be over areas such as schoolwork, disobedience, sibling conflicts, home chores and dress. More serious topics, such as the use of the car, sex, alcohol and drugs, are more likely to be discussed between parents and older adolescents (Atwater, 1992). Montemayor (1990) suggests that parents and adolescents rarely argue about such topics as sex, drugs, politics or religion, choosing instead to ignore such areas due to the differences of opinion between the generations.

Lynd and Lynd (1929, cited by Montemayor, 1990) report the earliest data on parent-adolescent conflict. The study included 730 adolescents, who were asked about topics that caused disagreement between themselves and their parents. The items found to cause the most disagreement were the times the adolescent got home at night and the number of times the adolescent went out on school nights during the week. The same study was replicated by Caplow, Bahr, Chadwick, Hill & Williamson (1982, cited by Montemayor, 1990). They found similar reports of conflict by adolescents in the 1980s as was found by adolescents in the late 1920s. The areas of conflict in the recent study were the times the adolescent got home at night and home duties.

Research by Smetana (1989) found that the most frequent topics found to elicit conflict were completing chores, followed, in descending order, by getting along with others (which included fighting with siblings), regulating activities (including amount of time spent on the telephone), the adolescent's personality characteristics, homework and academic achievement, regulating interpersonal relations, bedtime and curfew, appearances, financial concerns, and health and hygiene concerns. The conflicts were

evaluated as relatively mild, but the areas causing conflict were considered important. The research did not consist of a representative sample, as it was self-selected, and therefore, should be viewed with caution when making inferences to the population.

A study by Barber (1994) had parents report the frequency of conflicts over 10 different topics. The findings suggest that conflict was most likely to occur over everyday disputes rather than more complex areas such as sexual behaviour and substance use. Helping around the house was found to be the most frequent conflict, followed by conflict about family relations, school, dress and money. This was a valid study as it included a representative sample. Much of the research on parent-adolescent conflict has focused on white individuals but this study included three ethnic groups; whites, blacks and Hispanics. The findings were consistent for all three ethnic groups. The sample was large (n = 1,828) and randomly selected, and included single-parent families and stepfamilies. However, a downfall existed in that only parents were included in the study, and not adolescents. Therefore, the results obtained may have been different had adolescent perceptions been included.

Ellis-Schwabe and Thornburg (1986) completed a study investigating conflict areas between adolescents and their parents. The results found that home responsibilities and spending money were the two main areas of conflict with both mothers and fathers. Selecting clothes was the third area of disagreement with mothers, with using the telephone the third area with fathers.

In Ellis-Schwabe and Thornburg's (1986) study the areas that caused the most conflict between females and their mothers were, in descending order, home responsibilities, selecting clothes and dating. Home responsibilities, spending money and school attitudes were the main conflicting areas with males and their mothers. Females and their fathers were in conflict over spending money, using the telephone and home responsibilities. Males and their fathers reported spending money, home responsibilities and school attitudes as the most conflicting areas. Females reported more conflict than males in all areas, except for school attitudes. The study included a large (N = 756) sample, but downfalls included a predominately white sample, therefore minimising population representation, and only adolescents were included.

Atwater (1992) states that conflict experienced to a moderate degree may assist in the development of adolescent independence. There has been some evidence in the research to suggest that parent-adolescent conflict is a result of adolescent autonomy competing with parental authority within the family (Smetana et al., 1991a). This

research is consistent with the cognitive-developmental theory of conflict, presented earlier, which states that as adolescents gain cognitive maturation, certain areas usually perceived under parental control become regarded by adolescents as subject to their personal decision (Smetana, 1988).

The results of a study by Smetana (1989) indicate that conflict arises when an adolescent asserts autonomy over areas that compete with a parent's goal of maintaining authority and regulating the household. Further, the results also suggested that parents were occasionally unwilling to give up control over some areas, including regulation of interpersonal activities and relations. The investigated concepts of autonomy and authority in this study were measured using family interviews, which were later scored by coders. Each concept was coded separately. Lodge and Tripp (1995) state that the way in which cognitive data is coded effects the outcome of a study and consequently, the knowledge within a specific area. For this reason, the results of Smetana's study should be viewed with vigilance.

In a study by Montemayor and Hanson (1985), the researchers found that adolescent conflicts (with both parents and siblings) were over interpersonal topics, similar in frequency, and the way they were resolved. With evidence that adolescent conflicts with parents and siblings were so similar, the researchers conclude that parent-adolescent conflict believed to exist solely over independence needs to be viewed with caution. The study, however, does not give direct evidence to reject the hypothesis that parent-adolescent conflict may be a result of an adolescent developing independence because this concept was not investigated directly.

It has been suggested that parent-adolescent conflict is a result of the changes involved during the transition to adolescence. There are also a number of other confounding variables that relate to the conflict experienced within the parent-adolescent dyad. For this reason, the following section will look at how conflict can be related to areas of change and reorganization within the parent-adolescent relationship.

Changes in the Parent-Adolescent Dyad

Parents and adolescents often have differing interpretations of conflict related areas, whereby adolescents see themselves as having control over these areas, while parents see themselves as holding the control. This can be related to the

cognitive-developmental theory of conflict which states that as adolescents gain cognitive maturation, certain areas usually perceived under parental control are regarded by adolescents as subject to their personal decision (Smetana, 1988).

Differing Perceptions of Conflict Between Parents and Adolescents

Research by Smetana (1988) found a difference between adolescent and parental perceptions over areas of conflict. The study included 102 middle to upper-middle class, well-educated, mainly Caucasian adolescents, ranging in age from 10 to 18 years, and both their parents. The data was collected through individual interviews focusing on reasoning over actual and hypothetical family conflicts. Sufficient evidence was found to support the hypothesis that family conflict arises over parents and adolescents diverse interpretations of conflict matters.

Smetana (1988) found that parents were likely to explain areas of conflict from a conventional nature, while adolescents were more likely to justify such areas of conflict as their personal choice. In fact, 49% of adolescent justifications over conflict related to personal choice. Parents rarely treated topics of conflict as the adolescent's personal choice. Parents and adolescents were not in disagreement about the topics that caused conflict, but rather they interpreted conflict areas in completely different ways. For example, an adolescent was more likely to see "cleaning one's room" as their personal choice, whereas a parent saw the issue as depending upon parental authority and social organisation. However, the sample may have influenced the results because it was not representative of the population.

Holmbeck and O'Donnell (1991) found similar results to Smetana's (1988) study. In research involving 99 adolescents and their mothers, 23% of subjects were from single-parent families and 60% of subjects were not Caucasian, hence a more representative sample than that used in Smetana's (1988) study. Holmbeck & O'Donnell found differences between mothers' and adolescents' perceptions regarding decision making, which were associated with the frequency of conflict.

Family Structure

Research shows that conflict between parents and adolescents can be related to the structure of the family unit. The majority of research available on parent-adolescent conflict has been completed with intact two-parent, white, middle-class families (Silverberg et al., 1992). Montemayor (1986) speculates that parent-adolescent

conflict is highest in single-parent families, less in step-families, and least in intact two-parent families. He supports this speculation with research on family structure.

However, empirical evidence by Smetana et al. (1991a) found less parent-adolescent conflict in single-parent families when compared with married, two-parent families The study included interviews with 28 single-parent families (mothers and adolescents), and also a subset of 66 two-parent families, consisting of adolescents the same age as those of single-parent families. The mothers in the single-parent families had been divorced before their children entered adolescence, had not remarried and were not living with anyone at the time of the study. There were few differences reported in areas of conflict experienced by intact and single-parent families, but conflict was greater in intact than single-parent families.

Steinberg (1990) suggests that parent-adolescent conflict may vary according to family arrangements. This is true of single-parent families, and as Steinberg states, there is much diversity in non-intact families. Further, parent-adolescent conflict may vary depending on the timing of a separation or divorce within one-parent families, especially because the first two years following a divorce are the most crucial (Hetherington, 1989).

Peer Relationships

The psychoanalytic theory of conflict states that conflict occurs in families so that adolescents will begin to develop independence and separation from their parents and form bonds outside of the family unit. However, research on conflict does not support the theory that parent-adolescent conflict is related to greater peer influences and less interaction with the family.

Montemayor (1982) found no support for the investigated hypothesis that parent-adolescent conflict would be related to adolescents having a greater involvement with their peers. Further, Larson, Richards, Moneta, Holmbeck & Duckett (1996) found that adolescents who experienced more conflict did not spend less time with their families. Their results were not distorted by the sample as the subjects (n = 220) involved in the study were representative of the wider population.

Parental Mid-Life Transitions

Another important change in the parent-adolescent relationship, sometimes concurrent with adolescence, is parental transition, also referred to as middle-age. These developmental changes experienced by both parents and adolescents may affect the interaction between one another (Pardeck & Pardeck, 1990). Atwater (1992) states that parents experience similar changes to their adolescents, including biological changes, during a phase described as the 'mid-life crisis'. Both adolescents and parents are at critical stages in their developments, but are moving in opposite directions.

Further, it has been suggested that the adolescent unwittingly contributes to the parental mid-life crisis. Questions that are raised during adolescence, for example, careers and sexuality, often trigger parents to make re-assessments of such aspects within their own lives. In this respect, two generational transitions are occurring together, with the possibility of stressful outcomes (Kidwell, Fischer, Dunham, Baranowski; 1983; Cobb, 1995).

Parental Experience

Parent-adolescent conflict may vary depending on parental experience. A study by Cohen, Adler, Beck and Irwin (1986, cited by Hill, 1988) examined 900 parents with adolescents. It was found that parents of first-born children both perceived their children as more interpersonally negative and felt more negative towards first-born children, as opposed to later-born children. Similarly, a study by Small, Eastman & Cornelius (1988) found that parental stress was highest for parents who had early adolescent children, and parental experience was related to lessened stress.

Steinberg (1990) speculates that parents of first-born children may experience more strained relations with their adolescent because a self-fulfilling prophecy operates. Here, parents expect and find more difficult behaviour in their child than do parents who have already experienced an adolescent offspring.

A review of the literature found that, to date, there has been no direct research on parent-adolescent conflict and the use of the telephone. Only two studies were found to exist that took the use of the telephone into consideration when investigating parent-adolescent conflict. The following section will examine these studies.

Conflict and the Telephone

The first study is by Smetana (1989) where a range of areas that caused conflict were investigated using parent and adolescent subjects. Use of the telephone was placed under the category 'regulation of activities', which also included concerns regarding choice or timing of activities, amount of time spent watching TV, not practising the piano, engaging in after-school sports and going shopping. The results of the study found regulation of activities to be the third highest area of conflict between parents and adolescents, the first two being completing the chores and interacting with others. The study included a self-selected sample, who all came from two-parent families, which may have distorted the results of the research. Due to the biased sample, the results could not confidently represent the population under investigation.

Research by Ellis-Schwabe and Thornburg (1986) focused on the conflict areas between adolescents and their parents. Subjects included 756 adolescents between the ages of 10 and 14. The Family Roles Inventory designed by Thornburg (1982), was used to measure areas of conflict between parents and adolescents. The measure consisted of ten conflict areas, namely dating, choice of friends, use of free time, personal manners, attitudes toward school, home responsibilities, spending money, using the phone, selecting clothes and watching television. Each adolescent was required to check the three highest areas of conflict between both their mother and their father.

Telephone use was a consistently high area of conflict for females, as opposed to males, with both mother and father. In general, both male and female adolescent use of the telephone was found to be the third most conflicting area with fathers, and the second most conflicting area for females and fathers. Ellis-Schwabe & Thornburg (1986) found that "...using the telephone was definitely a major conflict between father and adolescent" (p. 67).

Cobb (1995) speculates that parent-adolescent conflict is about making decisions, specifically who is going to make the decisions. "Are adolescents really arguing about how loud their music can be, or about who gets to decide how loud is too loud?" (Cobb, 1995, p. 228). Therefore, parent-adolescent conflict over adolescent telephone use may not be related to the amount of time spent on the telephone, but rather about who (parent or adolescent) decides the length of telephone time. Research by Smetana (1988) supports the speculation made by Cobb. Smetana found that parents

and adolescents had diverse interpretations of who had responsibility over the areas that were related to conflict.

The following section will look at the research completed to date on adolescent independence, with the succeeding section reviewing parental control. The inclusion of these sections originated from the work by Smetana (1989), who found that conflict occurred when adolescent independence and parental control compete against one another. Further, the cognitive-developmental theory of conflict recognizes the connection between adolescent independence and parental control. The cognitive-developmental theory of conflict states that when an adolescent gains cognitive maturation, certain areas that were perceived under parental control are regarded by adolescents as subject to their personal decision (Smetana, 1988).

Adolescent Independence

Fundamental to adolescence is the aspiration for individual independence and less parental control (Noller, 1994). A desire for independence and autonomy can often create disharmony within the family and concern for parents (Pardeck & Pardeck, 1990). However, disharmony in the family and conflict over everyday topics may serve as an important context for the development of adolescent independence and autonomy (Smetana et al., 1991a; Pardeck & Pardeck, 1990).

Steinberg (1989) defines adolescent autonomy as a move away from dependency on parents, whereby the adolescent person takes responsibility for decision making, behaviour and emotional attachment. In searching for an individual identity, the adolescent may, temporarily, obtain views on subjects, such as morality, religion and politics, that differ from their parents' (Kidwell, Fischer, Dunham & Baranowski, 1983). Steinberg (1990) describes individuation as a process where a young person is psychologically separate from parents and has developed a clear sense of self. This, however, is a difficult concept to measure.

Coleman (1974) reports that independence holds different meanings for the different sexes. For females, independence is represented as internal freedom, the freedom to be oneself and express feelings and thoughts individually. On the other hand, males view independence as the ability to behave as one desires and to have freedom from constraint.

Parents and adolescents may have different ideas regarding the speed and process that independent behaviour is achieved (Small, Eastman & Cornelius, 1988). Horrocks (1976) postulates that developing independence may be detrimental for an adolescent if the parents expect too much too soon, or further, allow too little too late.

Holmbeck and O'Donnell (1991) investigated a representative sample of adolescents and their mothers. The findings suggest that more conflict exists in the mother-adolescent dyad when mothers are unwilling to allow adolescents the independence they desire. Adolescents reported emotional detachment from mothers who were less willing to grant autonomy, and teachers reported more internalising symptoms in these adolescents. This longitudinal study found that adolescents who had not been granted the autonomy they desired had lower self-concept scores.

Noller (1994) found that girls who were high in identity status had been independently encouraged by their mothers. Females who had a diffused identity role rated their mothers as both encouraging and highly controlling. According to Noller, these mothers wanted their adolescents to be independent but they wanted to control the process in which independence occurred.

Fasick (1984) believes that the expansion of the schooling system often sees adolescents in the transition from childhood to adulthood, but their lives remaining similar to those of children, as opposed to adults. Due to the fact that few adolescents can afford to financially support themselves throughout school, many remain at home during the adolescent years. Although freedom at home is often granted, parents still place limits on behaviour and control resources, hence limiting total independence.

As the adolescent begins developing independence, the peer group becomes increasingly important, while the desire for parental advice decreases (Small, Eastman & Cornelius, 1988). Pardeck and Pardeck (1990) state that peers play a substantial role in the development of independence, but the family is the primary push towards adolescent independence. These studies are consistent with the psychoanalytic theory of conflict which states that conflict occurs in families so that adolescents will begin to develop independence and separation from their parents and form bonds outside of the family unit (Silverberg et al., 1992; Cobb, 1995).

Hinde (1966) states that as an infant develops, the mother-offspring relationship makes progressive changes. He says that, to understand these changes, the roles of the mother-offspring interaction need to be separated. This is necessary to determine if

"...the growing independence of the infant is primarily a result of changes in the infant's behaviour, of changes in the mother's behaviour, or both" (Hinde, 1966, p. 645).

Research by Poole and Gelder (1984) investigated family cohesiveness and adolescent autonomy, using a large (n = 520), representative sample. They found that adolescents, regardless of sex, social class or ethnicity, viewed themselves as making the majority of decisions within their lives, although the family still influenced adolescent decision making to a certain extent. On the whole, adolescents considered the opinions of their parents above those of other family members and peers. Females valued their mother's opinions as more important, while fathers influenced their son's decision making.

A study by Smetana and Asquith (1994) investigated adolescent autonomy and parental authority and found that parents were still relatively controlling over adolescent topics. Although these adolescents were in the process of advancing their independence, parents were still maintaining control over their adolescents' choice of friends and physical appearance. The results of the study need to be viewed with caution as the majority of subjects were white and middle-class, hence distorting the results and producing a sample that is not representative of the population under investigation.

Silverberg and Steinberg (1987) found support for their assumption that parents experienced more mid-life concerns when their adolescent was asserting independence. The researchers, however, were unclear as to whether adolescent independence and parent-adolescent conflict affected parental mid-life concerns, or whether parental mid-life concerns contributed to independence and conflict areas. The study was limited as only intact two-parent families with first-born children were included as subjects. As stated earlier, research has been conducted by Smetana et al. (1991a) that found more conflict in two-parent families, and Small, Eastman & Cornelius (1988) who found parental experience was related to lessened stress. Therefore, the sample used in Silverberg & Steinberg's (1987) study may have produced distorted results.

Smetana (1988) concludes that conflict occurs when parents and adolescents have different perceptions of their relationship, and where there are negotiations regarding who is in control. The following section will examine parental control.

Parental Control

Parental perceptions of the role of parenting may be influenced by their child rearing attitudes, their views of children, and judgements regarding authority (Smetana, 1994). Previous experience, parenting skills, and style and developmental concerns are also related to the way in which parents raise their adolescents (Holmbeck, 1996).

Parents still play a critical role in the lives of their children during adolescence. As children approach adolescence, some parents feel as if they are losing control over their offspring and becoming powerless within the parental role (Small, Eastman & Cornelius, 1988). However, many parents do still try to maintain control over a number of adolescent decisions, for example, friendships, style of clothing, choice of leisure activities and contribution to household chores (Poole, Cooney & Chang Shook Cheong, 1986).

The type and extent of control that parents have over their adolescents may affect an individual's development of autonomy (Pardeck & Pardeck, 1990). Unfortunately, some parents think that their role is to implant their own values in the adolescent (Ellis-Schwabe & Thornburg, 1986). Noller (1994) holds that a balance between support and control is important when dealing with adolescents. Most adolescents benefit from a high support and low to moderate control environment. Further, Noller states that parents need to be flexible when dealing with adolescents, and may need to adapt the rules and role expectations when necessary.

The work of Diana Baumrind was one of the most influential in regard to styles of parental interaction with their children. She identified four different styles of parenting: authoritarian, authoritative, permissive and rejecting-neglecting. Each parenting style contributes either positively or negatively to the development of adolescent independence. Baumrind considers authoritative parenting to be the superior of the four styles (Cobb, 1995; Pardeck & Pardeck, 1990; Smetana, 1994).

Authoritarian parenting largely involves parental control stressing obedience and respect for authority (Cobb, 1995). Parents set out rules and regulations for their children, which they expect to be accepted and not questioned (Silverberg et al., 1992). Here, punishment is favoured when a child's beliefs or behaviour has conflicted with that set out by authoritarian parents (Smetana, 1994). Adolescents raised with this approach tend to grow up dependent on external authority, submissive and overly conforming, or rebellious and hostile (Atwater, 1992).

Parents adopting an authoritative approach appear to have an effective balance for nurturing their children (Silverberg et al., 1992). Authoritative parents guide rather than control their children. They encourage the development of independence, explain and discuss rules and discipline, and assert their own authority when it is needed (Cobb, 1995). These parents are supportive, loving and consistent within their role (Smetana, 1994). Authoritative parenting is successful in developing social responsibility and independence within adolescents (Pardeck & Pardeck, 1990). Individuals grow up with a high level of self-acceptance and personal control, feel loved and respected by their parents, and learn to act in responsible ways (Atwater, 1992). This style of parenting has been regularly associated with positive developmental outcomes in adolescence (Steinberg, 1990).

Permissive parenting, also known as indulgent or laissez-faire parenting, involves little control or power, allows much freedom, and does not rely heavily on punishment or responsibility (Cobb, 1995). Parents are often warm and supportive, yet make few demands on their children with regard to discipline or rule conformation (Silverberg et al., 1992). In turn, these individuals usually have low self-control and self-esteem, have a fear of rejection and often spend their lives seeking approval (Atwater, 1992).

Adolescents growing up with rejecting-neglecting parenting, also called permissive indifferent parenting, suffer the most. Parents are neglectful and unresponsive towards their children, and this type of parenting may involve abuse as a form of rejection. Such individuals usually grow up feeling rejected, with an inferiority complex, and with little direction within their lives (Atwater, 1992). Inconsistent parenting, for example an authoritative mother and permissive father, is also detrimental for a child (Cobb, 1995).

A study by Smetana (1994) found that adolescents reported their parents to use either a permissive or authoritarian style of parenting (44% of mothers and 40% of fathers as permissive, 29% of mothers and 37% of fathers as authoritarian). In comparison, parents were more likely to report using an authoritative approach (48% of mothers and 36% of fathers). Mothers were less likely to view themselves as permissive (12%) than were fathers (18%), and also less likely to view themselves as authoritarian (11%) than were fathers (29%). The results show a large discrepancy in parent and adolescent perceptions of parenting styles. Further, adolescents were found to desire more autonomy than their parents allowed them, regardless of parenting style.

Research by Barber (1994) found that negative parenting (smacking, slapping and yelling) was related to parent-adolescent conflict over household activities. Barber states that there is a possibility that negative parenting contributes to high levels of conflict, as well as adolescent personality characteristics.

Holmbeck (1996) suggested that parent-adolescent conflict might have a self-fulfilling prophecy effect. In this way, parents who expect their children to become rebellious may take an authoritarian approach to parenting when conflict arises, invariably leading to increased conflict.

Parents and adolescents who are not in agreement over the amount of parental monitoring could have different ideals of independence and freedom (Montemayor, 1986). Smetana (1994) found that during adolescence, parents and their offspring agreed that parents had the authority to control moral areas (not stealing, lying or harming others), conventional topics (not swearing, using table manners and being polite) and prudential subjects (drug, alcohol and cigarette use). As adolescents got older they were not so agreeable to parents controlling personal areas (choice of activities, clothing, hairstyle and music).

Huston & Alvarez (1990) maintain that there are shifts in parental power during adolescence, which will be different for each parent. Research by Feldman & Gehring (1990) found that, with increasing age, there was a reduction in power between parents and adolescents. However, at no specific age did parents and adolescents perceive equality in power between the two generations. This may have been a result of subjects still being dependent upon parents. The same study found that the ideal family was outlined as high in cohesion, with shared power amongst both parents and moderate power differences between parents and adolescents. Limitations of the study include subjects being from white, intact, middle and upper-middle class families only, which are not representative of the population.

The research on parent-adolescent conflict, adolescent independence and parental control, reviewed above, will be combined in the following section. The integration of the previous literature will provide evidence to develop the hypotheses used to examine the relationship between adolescent telephone use and parent-adolescent conflict in this study.

The Current Study

Some research and several conversations provided evidence that parent-adolescent conflict over adolescent telephone use was a regular and consistent occurrence in families. Further, looking specifically at adolescent telephone use as an area of conflict was a unique investigation as, to date, no research has been completed in this area.

The aim of this study was to firstly, investigate the relationship between adolescent use of the telephone and parent-adolescent conflict over its use. Secondly, the research aimed to provide a reason for the occurrence of parent-adolescent conflict over the use of the telephone. The study predicted that conflict over the use of the telephone was partially the result of an adolescent wanting to gain independence (as demonstrated by their being on the telephone as long as they want), and also of a parent wanting to maintain control over adolescent behaviour (telephone time being as long as a parent wishes).

The study included four important concepts; parent-adolescent *conflict*, adolescent *independence*, parental *control* and the *conflux* of adolescent independence and parental control. For the purpose of this study, the following operational definition will be used when referring to the *conflux* of *adolescent independence* and *parental control.*

The Conflux of Adolescent Independence and Parental Control

The meaning of *conflux* is defined as the coming together or combination of adolescent independence and parental control. A conflux occurs when adolescent independence and parental control converge simultaneously over a specific situation. A conflux is similar to a junction, where two roads meet. The middle point of where the two roads connect creates the junction. In the same way, when adolescent independence and parental control converge, the middle point of where the two concepts connect creates the conflux.

The Hypotheses

The current study has four hypotheses. The first hypothesis investigated whether or not there was a relationship between adolescent use of the telephone and parent-adolescent conflict. Secondly, the research looked at why adolescents use the telephone, and it was hypothesised that telephone use was an expression of adolescent

independence. Hypothesis three examined the relationship between adolescent telephone use and parental control. Here, it was hypothesised that the more an adolescent used the telephone, the more a parent would exhibit control over this use. The fourth hypothesis investigated why there was parent-adolescent conflict over adolescent telephone use, and it was hypothesised that parent-adolescent conflict over the telephone was associated with the conflux of adolescent independence and parental control.

Hypothesis One: Adolescent Telephone Use and Parent-Adolescent Conflict

Hypothesis one, called hereafter 'The Conflict Hypothesis', predicted that there would be a significant relationship between adolescent use of the telephone and parent-adolescent conflict. The presumption that there could be an association between adolescent telephone use and parent-adolescent conflict came about through talking to people and direct observation. Additionally, two studies outlined in the literature, Smetana (1989) and Ellis-Schwabe and Thornburg (1986), both found telephone use to be an area of conflict between parents and adolescents.

The evolutionary theory of conflict, presented earlier, stated that males, the sex that leaves the natal group, should exhibit more conflict than females who form permanent bonds with their mothers and sisters and stay in the natal group (Laursen & Collins, 1994). Therefore, if there is a significant relationship between adolescent telephone use and parent-adolescent conflict then, based on evolutionary theory, this relationship should be stronger for males than for females.

Hypothesis Two: Adolescent Telephone Use and Adolescent Independence

Hypothesis two, called hereafter 'The Independence Hypothesis', suggested that adolescent use of the telephone was an expression of independence. Here, it was predicted that there would be a significant relationship between adolescent use of the telephone and adolescent independence. It seemed plausible that a relationship should exist between adolescent use of the telephone and adolescent independence, as independence is considered an important part of development during the pubescent

years. As set out in the literature by Noller (1994), a yearning for independence and less parental control is fundamental to adolescence.

For the purpose of the current study, adolescent independence had two forms. Firstly, (a) the independence an adolescent had, referred to hereafter as 'Independence Have'; and secondly, (b) the independence an adolescent would like to have, referred to hereafter as 'Independence Want'.

Hypothesis Three: Adolescent Telephone Use and Parental Control

Hypothesis three, referred to hereafter as 'The Control Hypothesis', predicted that there would be a significant relationship between adolescent telephone use and parental control. It seemed likely that such a relationship should exist, since maintaining control over adolescent behaviour and controlling telephone use is customary to parents during this phase of offspring development.

Small, Eastman and Cornelius (1988) state in the literature that, as children approach adolescence, some parents feel as if they are losing control over their offspring and becoming powerless within the parental role. Therefore, one could assume that parents exercise control over adolescent telephone use to compensate for feelings of loss of control in other areas of adolescent behaviour.

As stated earlier, adolescent independence may take one of two configurations. Similarly, for the purpose of this investigation, parental control also had two different forms. Firstly, (a) the control a parent had, called hereafter 'Control Have'; and secondly, (b) the control a parent would like to have, called hereafter 'Control Want'.

Hypothesis Four: Conflict over Telephone Use and the Conflux of Adolescent Independence and Parental Control

Hypothesis four, called hereafter 'The Conflux Hypothesis', predicted that there would be a relationship between conflict over adolescent telephone use and the conflux of adolescent independence and parental control. The Conflux Hypothesis was based on the cognitive-developmental theory of conflict, which stated that parent-adolescent conflict resulted from changes in individual perceptions of their relationship. As adolescents gained cognitive maturation, certain areas usually perceived under parental

control became regarded by adolescents' as subject to their personal decision (Smetana, 1988).

The Conflux Hypothesis predicted that conflict over adolescent use of the telephone was related to the conflux of adolescent independence and parental control. In relation to the cognitive-developmental theory of conflict, adolescents' believed that they had the control over their telephone use (an area regarded by adolescents as subject to their personal domain), while at the same time parents believed they had control of adolescent telephone use (an area usually perceived under parental control). Therefore, both adolescents and parents were in opposition to control the same area (telephone use). The convergence (or conflux) of these opposing concepts (adolescent independence and parental control) in an attempt to control the same area (telephone use) was hypothesised to have a relationship with parent-adolescent conflict.

Further, a review of the current literature on parent-adolescent conflict disclosed a study by Smetana (1989). The results of Smetana's study suggested that conflict occurred when an adolescent asserted autonomy over areas that competed with parental goals of maintaining authority. Therefore, it seemed logical that a relationship may exist between conflict over telephone use and the conflux of adolescent independence and parental control.

As the study included two forms of both independence and control, it was possible to combine the conflux of adolescent independence and parental control in two different ways. Firstly, the conflux may have been the result of a parent already having control of telephone use, which consequently converged with an adolescent's desire for independence over this use. Secondly, the conflux may have been the result of an adolescent having control of their own telephone use (independence), which converged with a parent's desire for control over this use. It was for this reason that the main hypothesis was divided into two separate parts.

The Conflux Hypothesis: Part One: Parent Has Control and Adolescent Desires Independence

Part one of the Conflux Hypothesis stated that conflict over adolescent telephone use was the result of a parent having control and an adolescent wanting to gain independence. In this respect, a parent was restricting the independence they were allowing an adolescent, causing the adolescent to compete with parental control to

obtain this independence. The convergence of parental control and adolescent independence was derived by combining the two concepts, parental control and adolescent independence, into one statistical figure. The formula used for this is outlined in the 'Design and Plan of Analysis' section of the following chapter.

The Conflux Hypothesis: Part Two: Adolescent Has Independence and Parent Desires Control

Part two of the Conflux Hypothesis stated that conflict over adolescent telephone use was the result of an adolescent having independence and a parent wanting to regain control. Here, an adolescent felt as though they had sufficient independence over their telephone use, and a parent felt as if they were losing control. Therefore, to compensate for this loss, a parents desire for more control over telephone use converged with the independence an adolescent had over this use.

As explained earlier, when adolescent independence and parental control meet, the middle point of where the two concepts connect is the conflux. The conflux becomes a conflict when the two converging concepts are in opposition in an attempt to obtain the same goal, with neither the adolescent nor parent willing to compromise. Therefore, one or more of the two measures of the conflux of adolescent independence and parental control should exhibit a significant relationship with parent-adolescent conflict.

The remaining investigations looked into the more extreme groups of subjects within the sample, the High Telephone Use, Frustrated Independence and Frustrated Control groups. Specifically, the focus was on the relationship between adolescent telephone use and parent-adolescent conflict, that these extreme groups displayed.

The High Telephone Use Group

It was predicted that higher telephone use would have a stronger relationship with parent-adolescent conflict. The Conflict Hypothesis predicted that telephone use would be related to parent-adolescent conflict. Here, it was interesting to investigate whether higher telephone use resulted in higher conflict.

The Frustrated Independence Group

Some individuals had more independence than they wanted, while others had as much independence as they wanted. However, some individuals wanted more independence than they had. As these particular individuals did not have the independence they desired, they were experiencing 'frustrated independence'. The Independence Hypothesis predicated that adolescent telephone use was an expression of independence. Here, it was interesting to investigate whether individuals with frustrated independence had higher telephone use. In relation to the Independence Hypothesis, this predication seemed plausible as this group of frustrated individuals would have been expressing the desire for more independence through greater use of the telephone.

Further, the Conflux Hypothesis predicted that the convergence of adolescent independence and parental control was related to parent-adolescent conflict. Interestingly, because adolescent individuals with frustrated independence desired more independence than they had, the convergence with parental control would have been greater, which consequently would produce a stronger relationship with parent-adolescent conflict. To test this assumption, the Conflux Hypothesis was tested using the Frustrated Independence group.

The Frustrated Control Group

As with the frustrated independence group, some parents indicated that they wanted more control than they actually had. The Control Hypothesis predicted that adolescent telephone use would be related to parental control. For the frustrated control group, their desire for control over the telephone use of their offspring should have been greater than those parents who had as much or more control than they wanted, because they did not possess such control. For this reason, it seemed likely that adolescent telephone use would have a stronger relationship with frustrated parental control (the control a parent wanted but did not have).

It was also assumed that because parents with frustrated control desired more control than they had, the convergence with adolescent independence would be greater, resulting in a stronger relationship with parent-adolescent conflict. The Conflux Hypothesis was used for those parents displaying frustrated control to test this assumption.

CHAPTER TWO

METHOD

Participants

A total of 248 individuals participated in the current study. From this total, 160 participants were adolescent high school students and 88 were their parents or caregivers. One hundred and eighteen individuals were female and 93 were male. Seventy-eight of the subjects were adolescent females, 74 were adolescent males and 8 adolescents (5%) did not state their sex. Forty of the participants were female parents/caregivers (referred to hereafter as parents), 19 were male parents and 29 parents (33%) did not specify their sex.

In total, 412 questionnaire forms (206 adolescent forms, 206 parent forms) were given out. Thus, there was an overall participation rate of 60%. The response rate for parent questionnaire forms was 40% and 75% respectively for adolescent participants.

Of the 248 questionnaires returned, 83 of the adolescent participants were paired with their parents, therefore, making a total of 166 subjects. Seventy-seven adolescent individuals had parents who did not return forms. Similarly, 5 parents returned forms without their adolescents participating in the study.

Participants were recruited through four local high schools within the Palmerston North region. Four public secondary schools were chosen by the researcher in an attempt to provide a representative sample, taking into consideration gender, ethnicity and socio-economic status. Two of the schools were single-sexed (middle-upper class) and the remaining two schools were co-educational (lower-middle class). The Palmerston North area was chosen for its familiarity and accessibility to the researcher, and for cost reasons.

Forms Three and Four (first and second year of high school) students from each school were approached for participation in the study. Thus, most adolescent participants were aged around 13 and 14 years, a period also known as early adolescence. Parent participants were recruited through adolescent participants. All participants were volunteers.

A copy of the proposed research was submitted to the Massey University Ethics Committee, and the research was instituted once ethics approval was received. Adolescent participants were required to read an Information Sheet (see Appendix 1), sign a Consent Form (see Appendix 2), fill out an Adolescent Questionnaire Form (see Appendix 3) and take a similar questionnaire form home to one parent. Each parent who participated in the study was asked to read an Information Sheet (see Appendix 4), fill out a Parent/Caregiver Questionnaire Form (see Appendix 5) and return the latter to the researcher in an attached stamped, addressed envelope.

Measures

As no other research had previously been published in the area of adolescent telephone use, the measures used were developed and designed by the researcher for this study. These measures included two questionnaire forms, one for adolescents and a similar one for parents. Both questionnaires focused on adolescent use of the telephone and parent-adolescent conflict over adolescent use of the telephone. Every questionnaire was coded with a number, so as to identify adolescents with their parents.

The Adolescent Questionnaire Form

The adolescent questionnaire contained eight questions in total. Each question was recorded using a uni-dimensional 7-point Likert Scale. As well as investigating (a) adolescent telephone use and (b) parent-adolescent conflict, the adolescent questionnaire also included a section on (c) independence.

Details of the Questions

Question one was divided into two parts, namely weekday and weekend. The week was separated because it was presumed that adolescents might spend more time on the telephone during the weekend as they would have more time available while not being at school. The second question was also a measure of telephone use. This question was designed to encourage the adolescent to think about their telephone use.

The following four questions measured adolescent perceived independence, the first two specifically in relationship with telephone use and the remaining related to general independence. The reason for the two foci was to determine whether perceived

telephone independence and general independence were different and if so, to ascertain whether early adolescents were concerned with gaining telephone independence, general independence or both.

Question three was a measure of the telephone independence an adolescent believed they had. The telephone independence an adolescent wanted was measured in question four. Similarly, questions five and six focused on perceived general independence, as opposed to telephone independence.

Question seven was also divided into two parts, based on the same premise that divided question one, suggesting that the telephone would be used more often in the weekend, due to schooling, and therefore, creating more conflict. The final question required the participant to indicate how much parent-adolescent conflict the telephone had caused within the last month.

The Parent Questionnaire Form

The parent questionnaire form was structured similarly to the adolescent questionnaire form, the only difference being that the section on independence in the previous investigation was replaced, in the current form, by a section on control. The parent questionnaire was only required to be filled out by one parent, so that single-parent families would not feel discriminated against. The New Zealand National Summary 1996 Census reported that 27% of families consist of one parent with dependent children (Department of Statistics, 1996).

Details of the Parental Control Section

The section on control consisted of four questions. The first, question three, measured the telephone control a parent believed they held. Question four was a measure of the telephone control a parent would like. Questions five and six established the general control a parent perceived they had and would like to have.

Procedure

The initial stages of the research involved the researcher contacting the principals of four local Palmerston North secondary schools and informing them of the proposed research. Following this, a time was negotiated for the researcher to visit each principal in person, to explain and detail the nature and purpose of the study. Once the research had been approved by the four principals, the researcher discussed a suitable way of distributing the questionnaire forms amongst the students.

All schools preferred to distribute the questionnaire forms without the assistance of the researcher. Each principal selected two classrooms of either Form three or four students who may have been interested in participating in the study. The researcher delivered the required number of questionnaire forms to the schools. It is presumed that the principals outlined the details of the research to the students and then handed out the questionnaire forms.

Potential participants were required to read the attached Information Sheet to ensure that they were protected from potential harm. Each Information Sheet outlined the nature and purpose of the study, and included the rights of the participants should they decide to take part. Participation was entirely voluntary. The researcher's name and phone number were included in the Information Sheet in case any of the participants required further information regarding the study. A Consent Form had to be signed by each adolescent before becoming involved within the study. All forms were completed and returned at school, which were picked up by the researcher at a later date. Participants were also supplied with a Parental Questionnaire Form, which they were asked to take home to one of their parents.

Each parent who received a questionnaire form was supplied with an Information Sheet explaining the study. It was written that completing and returning the questionnaire implied consent on the parents behalf. A stamped, addressed envelope was attached to every parental form, and consequently these were returned to the researcher through the post.

Design and Plan of Analysis

The current study used correlations to examine the relationships between variables. A Pearson product moment correlation was used to calculate the correlation coefficient. Two-tailed *t*-tests were used throughout the analysis, to compare the differences between the means of two groups. A confidence level was set with an alpha of .05 ($p < .05$). The majority of *t*-tests were dependent and were used for times of the week and between parents and their offspring. Independent *t*-tests were used for calculations between females and males.

The following analysis was divided into eleven sections. This dimension was necessary so that preliminary analyses could be carried out on certain measures, in an attempt to obtain overall measures, before testing each of the hypotheses.

Section One: Adolescent Telephone Use

Weekday and Weekend Reports of Telephone Use

Using the reports of weekday and weekend *Telephone Use* in the questionnaire, the (a) mean and standard deviation for the weekday and weekend reports of adolescent *Telephone Use* were calculated. Secondly, a (b) t-test was computed between the weekday and weekend reports of *Telephone Use*, to investigate whether there was a difference between telephone use during the weekdays and on the weekends. To ensure that the weekday and weekend *Telephone Use* measures were related and could be combined to make a total *Telephone Use* measure, a (c) correlation test was calculated between the questionnaire reports of weekday and weekend *Telephone Use*. Each of the calculations were carried out separately for adolescents and for parents.

Adolescent and Parental Telephone Use Reports

Using the total *Telephone Use* measures for adolescents and for parents, the (d) mean and standard deviation were calculated. To ensure one overall measure of *Telephone Use* could be obtained, a (e) t-test was calculated between adolescents' total reports of *Telephone Use* and parents' total reports of *Telephone Use* to see if there was a difference between the two groups.

Female and Male Telephone Use Differences

This part involved calculating (f) the mean and standard deviation of the overall *Telephone Use* measure for the two sexes. Secondly, (g) a *t*-test for overall *Telephone Use* between females and males was computed, to establish whether one gender had higher telephone use than the other, and to investigate whether or not the scores could remain together.

Section Two: Parent-Adolescent Conflict over Adolescent Telephone Use

Weekday and Weekend Reports of Conflict

Using the estimates of weekday and weekend *Conflict* outlined in the questionnaire, the (a) mean and standard deviation for weekday and weekend reports of *Conflict* were computed. The (b) difference between the weekday and weekend reports of *Conflict* was calculated using a t-test, to establish whether telephone use conflict was higher during the weekdays or weekends. To ensure that a total *Conflict* measure could be derived a (c) correlation test was computed between the weekday and weekend reports of *Conflict* to investigate the relationship between these two measures. Each calculation was completed separately for adolescents and for parents.

Adolescent and Parental Reports of Conflict

The (d) mean and standard deviations of total *Conflict* for adolescents and parents were calculated. A (e) t-test was computed between the adolescent reports of total *Conflict* and the parental reports of total *Conflict*, to establish whether the scores on these two measures could be combined to make one overall measure of *Conflict*

Female and Male Conflict Differences

Female and male differences over telephone use conflict were computed using the scores on the total *Conflict* measures. The (f) mean and standard deviation of the *Conflict* measure were computed for females and for males. The difference between telephone use for the two genders was tested by calculating (g) a t-test between *Conflict* for the sexes, to investigate whether their scores could be combined.

Section Three: The Conflict Hypothesis: Adolescent Telephone Use and Parent-Adolescent Conflict

The Conflict Hypothesis predicted that there would be a significant relationship between adolescent *Telephone Use* and *Parent-Adolescent Conflict* over adolescent use of the telephone. A correlation analysis was carried out to test this assumption.

Section Four: Adolescent Independence

Female and Male Reports of Independence

The (a) mean and standard deviation for both sexes for *Telephone Independence Have*, *Telephone Independence Want*, *General Independence Have* and *General Independence Want* was calculated. Female and male differences on the *Independence* measures were investigated by calculating: (b) a t-test between *Telephone Independence Have* for females and males; and (c) a t-test between *Telephone Independence Want* for the different sexes.

Independence Have and Independence Want

To investigate whether the Independence Have and Independence Want measures were measuring different forms of independence and were not related, a correlation analysis was calculated. A correlation test was computed between: (d) *Telephone Independence Have* and *Telephone Independence Want*; and (e) *General Independence Have* and *General Independence Want*.

Telephone Independence and General Independence

A *t*-test was calculated between: (f) *Telephone Independence Have* and *General Independence Have*; and (g) *Telephone Independence Want* and *General Independence Want*. The difference tests were computed to establish whether the scores between each of these measures were similar or different, and to see whether or not they could be combined.

Section Five: The Independence Hypothesis: Adolescent Telephone Use and Adolescent Independence

The Independence Hypothesis predicted that adolescent *Telephone Use* would have a significant relationship with adolescent *Independence*. A correlation analysis was computed to test this assumption using: (a) *Telephone Independence Have* and (b) *Telephone Independence Want*.

Section Six: Parental Control

Firstly, descriptive statistics for *Parental Control* were computed. The descriptive statistics involved calculating: (a) the mean and standard deviation for *Telephone Control Have*, *Telephone Control Want*, *General Control Have*, and *General Control Want*.

Control Have and Control Want

A correlation analysis was computed between the Control Have and Control Want measures to ensure that the were not related and were measuring different forms of control. A correlation test was computed between (b) *Telephone Control Have* and *Telephone Control Want*; and (c) *General Control Have* and *General Control Want*.

Telephone Control and General Control

A *t*-test was carried out between: (d) *Telephone Control Have* and *General Control Have*; and (e) *Telephone Control Want* and *General Control Want*. This was completed to establish whether the scores between each of the measures were similar or different, and to see whether or not they could be combined.

Section Seven: The Control Hypothesis: Adolescent Telephone Use and Parental Control

The Control Hypothesis predicted that adolescent *Telephone Use* had a significant relationship with parental *Control*. A correlation analysis was carried out to test this assumption using: (a) *Telephone Control Have* and (b) *Telephone Control Want*.

Section Eight: The Conflux Hypothesis: Conflict over Telephone Use and the Conflux of Adolescent Independence and Parental Control

The Conflux Hypothesis predicted that there would be a significant relationship between *Parent-Adolescent Conflict* over adolescent telephone use and the combination (*Conflux*) of *Adolescent Independence* and *Parental Control*. Firstly, the combination of *Adolescent Independence* and *Parental Control* was converted into one statistical figure, which was later used in the correlation analysis. There were two combinations of *Adolescent Independence* and *Parental Control*, producing a total of two statistical figures. Each figure was completed using the following calculations:

(a) The *Adolescent Independence* and *Parental Control* scores were multiplied together (e.g., 5 x 10 = 50) to produce X;
(b) The smaller number of the two scores was divided by the larger number (e.g., 5 / 10 = 0.5) to produce Y;
(c) X was multiplied by Y to produce Z (e.g., 50 x 0.5 = 25), where Z became the *Conflux of Adolescent Independence and Parental Control*.

Secondly, a correlation analysis was used to test: (a) the relationship between *Conflict* over adolescent telephone use and the *Conflux of Control Have and Independence Want*. A correlation analysis was also used to test: (b) the relationship between *Conflict* over adolescent telephone use and the *Conflux of Independence Have and Control Want*.

Section Nine: The High Telephone Group

Individuals who had high telephone use were distinguished from those who did not have high telephone use, so that the relationship with conflict between the two groups could be compared. This was performed by calculating the mean and standard deviation for adolescent *Telephone Use*. Individuals who were one standard deviation above the mean fell into the *High Telephone Group*. Individuals who were between plus one and minus one standard deviation of the mean fell into the *Moderate Telephone Group*.

Firstly, the (a) mean and standard deviation for the *High Telephone Group* and the *Moderate Telephone Group* was computed. An investigation into the different relationships between telephone use and conflict in the *High Telephone Group* and telephone use and conflict in the *Moderate Telephone Group* involved calculating (b) a

correlation test between *Telephone Use* and *Parent-Adolescent Conflict* for the *High Telephone Group* and for the *Moderate Telephone Group*.

Section 10: The Frustrated Independence Group

Section 10 looked at the extreme group of adolescents who indicated that they wanted more independence than they actually had (frustrated independence). Firstly, a t-test was used to compute the difference between (a) *Telephone Independence Have* and *Telephone Independence Want*. This was completed so that a third independence measure (*Frustrated Independence*) could be derived. A *Frustrated Independence* measure was calculated by subtracting *Telephone Independence Have* from *Telephone Independence Want*.

The (b) mean and standard deviation for the *Frustrated Independence Group* was computed. An investigation into the relationships between adolescent telephone use and parent-adolescent conflict over telephone use for individuals in the *Frustrated Independence Group* involved calculating: (c) the correlation between *Frustrated Independence* and adolescent *Telephone Use*; and (d) the correlation between *Conflict* over adolescent telephone use and the *Conflux of Control Have and Frustrated Independence*.

Section 11: The Frustrated Control Group

This section looked at the extreme group of parents who indicated that they wanted more control than they actually had (frustrated control). A t-test was used to calculate: (a) the difference between *Telephone Control Have* and *Telephone Control Want*. The difference was measured to determine whether a third control measure (*Frustrated Control*) could be developed. A *Frustrated Control* measure was derived by subtracting *Telephone Control Have* from *Telephone Control Want*.

The (b) mean and standard deviation for the *Frustrated Control Group* was computed. An investigation into the relationships between adolescent telephone use and parent-adolescent conflict over telephone use for individuals in the *Frustrated Control Group* involved calculating: (c) the correlation between *Frustrated Control* and adolescent *Telephone Use*; and (d) the correlation between *Conflict* over adolescent telephone use and the *Conflux of Independence Have and Frustrated Control*.

CHAPTER THREE

RESULTS

The following chapter will describe and measure Telephone Use, Parent-Adolescent Conflict, Adolescent Independence and Parental Control, and the relationship between these variables. Finally, the High Telephone Use Group, Frustrated Independence Group and Frustrated Control Group will be examined. The sections and letters in parentheses will correspond to those outlined in the Design and Plan Of Analysis of Chapter Two.

Occasionally a participant, both adolescents and parents, would fail to answer a particular question in the questionnaire. When no answers were given, the data was treated as missing. Single instances of missing data appeared in 14 records. In reporting the results, to make it easier for the reader the raw scores have been converted to hours and minutes where appropriate.

Several analyses, which were not predicted before the research was done, have been carried out and, therefore, suffer from the problem of multiple comparisons. When multiple comparison tests are done, the alpha that was originally set slips. Alpha slippage incurs if comparisons are predicted after the data is collected. This is particularly true if *post-hoc* tests are completed (Li, 1984).

Adolescent Telephone Use

Weekday and Weekend Reports of Telephone Use

(a) Adolescents and parents both reported adolescent *Telephone Use* to be 27% and 40% higher, respectively, during the weekends than the weekdays. The mean scores and standard deviations for weekday and weekend estimates of time adolescents spend on the telephone, as reported by all adolescents, are shown in Table 1, and as reported by all parents are shown in Table 2.

Table 1: Average Times and Standard Deviations for Adolescent Daily Telephone Use as Reported by All Adolescents

	n	*Mean*	*SD*
Weekday	160	1 hour 6 minutes	54 minutes
Weekend	158	1 hour 24 minutes	1 hour
Weighted Total	160	1 hour 9 minutes	48 minutes

Table 2: Average Times and Standard Deviations for Adolescent Daily Telephone Use as Reported by All Parents

	n	*Mean*	*SD*
Weekday	88	1 hour	45 minutes
Weekend	88	1 hour 24 minutes	1 hour 3 minutes
Weighted Total	88	1 hour 6 minutes	45 minutes

(b) A *t*-test showed that there was a significant difference [$t(157) = 6.00$, $p < .001$] between weekday (M = 1 hour and 6 minutes, SD = 54 minutes) and weekend (M = 1 hour and 24 minutes, SD = 1 hour) reports of *Telephone Use* for all adolescents. Adolescents reported weekend *Telephone Use* to be 18 minutes more a day than during the weekend. Parents reported weekend *Telephone Use* to be 24 minutes more a day when compared with weekday *Telephone Use*. A significant difference [$t(87) = 5.90$, $p < .001$] was found between weekday (M = 1 hour, SD = 45 minutes) and weekend (M = 1 hour and 24 minutes, SD = 1 hour and 3 minutes) reports of *Telephone Use* for all parents.

(c) A Pearson product moment correlation coefficient indicated a strong correlation between weekday and weekend reports of *Telephone Use* for all adolescents ($r = .78, p < .001, n = 158$), and a slightly stronger correlation between weekday and weekend estimates of *Telephone Use* for all parents ($r = .82, p < .001, n = 88$). A strong correlation for both parent and adolescent reports of weekday and weekend *Telephone Use* suggested that each of the two measures were measuring a similar type of behaviour, although at different levels.

Since these two measures were strongly correlated for both adolescents and for parents, the weekday and weekend measures were weighted and then combined to make a total daily estimate of *Telephone Use* for all

adolescents and for all parents. This was accomplished using the following formula: Total Daily *Telephone Use* equalled (Weekday *Telephone Use* weighted by five) plus (Weekend *Telephone Use* weighted by two) divided by seven.

Adolescent and Parental Reports of Telephone Use

(d) The mean for the adolescent report of total *Telephone Use* was (M = 1 hour and 9 minutes, SD = 48 minutes, n = 160) and for the parent report it was (M = 1 hour and 6 minutes, SD = 45 minutes, n = 88). (e) A t-test between the adolescent report of total *Telephone Use* and the parent report of total *Telephone Use* revealed no significant difference [$t(82) = 1.14, p > .05$]. Due to the fact that there was not a significant difference between the scores of adolescent and parental total *Telephone Use*, these measures were combined for the two generations to make one overall *Telephone Use* measure. This was completed because a more reliable estimate of *Telephone Use* is attained when combining two independent estimates.

The above combination was completed using the formula: (Parent estimate of *Telephone Use* plus Adolescent estimate of *Telephone Use*) divided by two. The sum of this equation became the overall *Telephone Use* measure, and was the measure used in all future calculations involving adolescent *Telephone Use*.

Differences Between Female and Male Telephone Use

(f) Female adolescents had 60% more telephone use (M = 1 hour and 24 minutes, SD = 45 minutes, n = 78) than did their male counterparts (M = 51 minutes, SD = 30 minutes, n = 74). (g) A t-test indicated that there was a significant difference [$t(77) = 4.06$, $p < .001$] between female and male *Telephone Use*. Since all female and all male *Telephone Use* scores were so dissimilar, the sexes were not combined and were calculated separately in all future calculations involving adolescent *Telephone Use*.

The Overall Telephone Use Measure

In conclusion, the weekday and weekend reports of *Telephone Use* were combined to make a total *Telephone Use* measure for both adolescents and parents. The overall *Telephone Use* measure was the combined adolescent total *Telephone Use* and parent total *Telephone Use* measures. Due to the fact that this combination was the average between adolescent and parental total *Telephone Use*, only adolescents whose parents, and parents whose adolescents, participated in the study were included in the overall *Telephone Use* measure, which was used for all remaining calculations involving *Telephone Use*. A mean of one hour and six minutes (M = 2.2, SD = 1.4, n = 83) was recorded for the overall *Telephone Use* measure.

Parent-Adolescent Telephone Use Conflict

Weekday and Weekend Reports of Conflict

(a) Adolescents reported that conflict over telephone use was more frequent during the weekdays than the weekend, while parents thought conflict was more frequent during the weekend. The mean scores and standard deviations for weekday and weekend reports of parent-adolescent *Conflict* over telephone use are recorded in Table 3, where 1 = no conflict, 2 = low conflict, and 3 = moderate conflict.

Table 3: Mean Scores and Standard Deviations for All Adolescents' and All Parents' Weekday and Weekend Reports of Conflict over Telephone Use

	Adolescent			**Parent**		
	n	***Mean***	***SD***	***n***	***Mean***	***SD***
Weekday	158	3.31	1.7	88	2.8	1.57
Weekend	160	2.93	1.66	88	2.67	1.47

(b) A t-test revealed a significant difference [$t(157) = 4.39, p < .001$] between the weekday (M = 3.31, SD = 1.70) and weekend (M = 2.93, SD = 1.66) reports of *Conflict* for all adolescents. There was also a significant difference [$t(87) = 2.01, p < .05$] between the weekday

(M = 2.80, SD = 1.57) and weekend (M = 2.67, SD = 1.47) reports of *Conflict* for all parents.

(c) A Pearson product moment correlation coefficient indicated a strong correlation between weekday and weekend estimates of *Conflict* for all adolescents (r = .82, p < .001, n = 158), and between weekday and weekend estimates of *Conflict* for all parents (r = .78, p < .001, n = 88). As the correlations were both strong, the weekday and weekend estimates of *Conflict* were weighted and then combined for all adolescents and for all parents. These measures became the total *Conflict* measures.

Since these two measures were strongly correlated for both generations, suggesting that the weekday and weekend measures were measuring the same type of behaviour albeit at different levels, the weekday and weekend measures were weighted and then combined to make a total estimate of *Conflict* for all adolescents and for all parents. The following formula was used to calculate this: Total *Conflict* equalled (Weekday *Conflict* weighted by five) plus (Weekend *Conflict* weighted by two) divided by seven.

Adolescent and Parental Reports of Conflict

(d) The adolescent total report of *Conflict* had a mean score of 3.19 (SD = 1.64, n = 160) and the total report of *Conflict* for parents had a mean score of 2.76 (SD = 1.52, n = 88). (e) A t-test was computed and there was a significant difference [$t(82) = 2.54$, p < .02] between adolescents' and parents' total *Conflict* reports. Therefore, as the scores on these measures were different, the adolescent and parental reports were not combined to make an overall measure, and instead the total *Conflict* measures already established were both used in all later calculations involving *Conflict*. The total *Conflict* measures included all adolescent and all parent participants in the study.

Gender Differences for Conflict

(f) The mean *Conflict* level for females was 3.50 (SD = 1.56, n = 78) and for males it was 2.84 (SD = 1.62, n = 74), as reported by all adolescents. All parents reported the following *Conflict* scores for female adolescents (M = 3.02, SD = 1.61, n = 40) and for male adolescents (M = 2.47,

SD = 1.42, $n = 39$). (g) A significant difference [$t(150) = 2.58, p < .02$] was found for *Conflict* between females and males, as reported by adolescents. However, for parental reports, no significant difference [$t(77) = 1.61, p > .05$] was found for *Conflict* between the two sexes. Due to the inconsistent t-test results, it was not possible to conclude whether the scores between the two gender groups on the *Conflict* measure were similar or different. Therefore, female and male adolescents were computed separately for all future calculations involving *Conflict*.

The Conflict Hypothesis: Adolescent Telephone Use and Parent-Adolescent Conflict

The Conflict Hypothesis predicted that there would be a significant relationship between adolescent *Telephone Use* and *Parent-Adolescent Conflict* over adolescent use of the telephone. As this analysis involved the *Telephone Use* measure, only adolescents whose parents participated in the study were included.

A weak correlation was found between *Telephone Use* and *Parent-Adolescent Conflict* for females ($r = .17, p > .05, n = 40$), as reported by female adolescents. A strong correlation was found between *Telephone Use* and *Parent-Adolescent Conflict* for males ($r = .49, p < .01$, $n = 39$), as reported by male adolescents. A strong correlation was found between parental reports of *Telephone Use* and *Conflict* for females ($r = .62, p < .001, n = 40$) and males ($r = .55, p < .001, n = 39$). Table 4 provides the results of the correlations between adolescent *Telephone Use* and *Parent-Adolescent Conflict*, as reported by both adolescents and parents. For all tables, * denotes significance at 0.5.

Table 4: Correlation Coefficients between Telephone Use and Conflict as Reported by Adolescents and Parents

	Females	Males
Adolescents	0.17	0.49*
Parents	0.62*	0.55*

In sum, there was sufficient evidence to accept the Conflict Hypothesis for males. For females, the Conflict Hypothesis was only accepted as reported by parents.

Adolescent Independence

Female and Male Reports of Independence

(a) Descriptive statistics for *Independence* were recorded for both all female and all male adolescents and these results are presented in Table 5. As shown in the tables, the means and standard deviations for females and males were similar.

Table 5: Average Independence Scores for Adolescent Female and Male Reports of Telephone and General Independence

	Females			**Males**		
	n	***Mean***	***SD***	**n**	***Mean***	***SD***
Telephone Independence Have	78	4.74	1.61	74	4.78	2.05
Telephone Independence Want	78	2.79	1.94	74	2.46	1.91
General Independence Have	78	5.05	1.09	74	5.08	1.33
General Independence Want	78	4.45	1.68	74	4.5	1.93

(b) A t-test revealed no significant difference [$t(150) = .135, p > .05$] between all female ($M = 4.74$, $SD = 1.61$) and all male ($M = 4.78$, $SD = 2.05$) reports of the telephone independence they believed they had. (c) No significant difference [$t(150) = 1.07, p > .05$] was also found between all female ($M = 2.79$, $SD = 1.94$) and all male ($M = 2.46$, $SD = 1.91$) reports of the telephone independence they wanted. As there were no significant differences between the scores of the female and male groups, the sexes remained together for all future calculations involving *Independence*. The overall means and standard deviations for *Independence* are illustrated in Table 6.

Table 6: Overall Female and Male Scores for All Adolescent Reports of Telephone and General Independence

	n	Mean	SD
Telephone Independence Have	160	4.74	1.82
Telephone Independence Want	160	2.65	1.93
General Independence Have	160	5.06	1.2
General Independence Want	160	4.49	1.79

Independence Have and Independence Want

(d) A weak correlation ($r = -.04, p > .05, n = 160$) was found between *Telephone Independence Have* and *Telephone Independence Want*. (e) A weak correlation ($r = -.05, p > .05, n = 157$) was also found between *General Independence Have* and *General Independence Want*. These weak correlations suggested that the variables were not related, and could continue to operate separately.

Telephone Independence and General Independence

(f) No significant difference [$t(158) = 1.86, p > .05$] was found between *Telephone Independence Have* ($M = 4.74$, $SD = 1.82$) and *General Independence Have* ($M = 5.06$, $SD = 1.20$). The results of the *t*-test suggest that the scores on the two measures were similar.

(g) A significant difference [$t(157) = 10.79, p < .001$] was found between *Telephone Independence Want* ($M = 2.65$, $SD = 1.93$) and *General Independence Want* ($M = 4.49$, $SD = 1.79$). The results of the t-test suggest that the scores on the two measures were different.

In sum, a significant difference was not found between *Telephone Independence Have* and *General Independence Have*, suggesting that the measures were measuring a similar type of behaviour. Hence, the scores for the telephone independence an adolescent has were similar to the scores for the general independence an adolescent has. A significant difference was found between *Telephone Independence Want* and *General Independence Want*, suggesting that the scores for the telephone independence an adolescent wants were different from the scores for the

general independence an adolescent wants. Consequently, the *Telephone and General Independence* measures remained separate. Only the *Telephone Independence* measures were used in all future calculations involving *Independence*, by virtue of relevance within the current study.

The Independence Hypothesis: Adolescent Telephone Use and Adolescent Independence

The Independence Hypothesis predicted that adolescent telephone use would have a significant relationship with one or more of the two forms of independence. All reports were by adolescents only. Further, as this analysis involved the *Telephone Use* measure, only adolescents whose parents participated in the study were included.

Telephone Use and Independence Have

(a) Only a weak correlation was found between *Telephone Use* and *Independence Have* for females ($r = .11, p > .05, n = 40$). Similarly, a weak correlation was also found between *Telephone Use* and *Independence Have* for males ($r = -.16, p > .05, n = 39$).

Telephone Use and Independence Want

(b) As was found with *Independence Have*, a weak correlation was found between *Telephone Use* and *Independence Want* for females ($r = .07$, $p > .05, n = 40$). In contrast, a strong correlation was found between *Telephone Use* and *Independence Want* for males ($r = .54, p < .001$, $n = 39$). Table 7 contains the correlation coefficients for *Telephone Use* and both forms of *Independence*, for female and male adolescents.

Table 7: Correlation Coefficients for Telephone Use and Independence as Reported by Adolescents

	Females	**Males**
Independence Have	0.11	-0.16
Independence Want	0.07	0.54*

In sum, there was sufficient evidence to accept the Independence Hypothesis for males, with the independence they desired. Female adolescents did not support the Independence Hypothesis.

Parental Control

Descriptive Statistics

(a) Parents reported that they had more *General Control* than *Telephone Control* and reported wanting more *Telephone Control* than *General Control*. Table 8 illustrates the means and standard deviations for all parental reports of *Control*.

Table 8: Average Scores for All Parental Reports of Telephone and General Control

	n	Mean	SD
Telephone Control Have	88	3.08	1.61
Telephone Control Want	88	3.25	1.91
General Control Have	88	4.14	1.47
General Control Want	88	2.73	1.54

Control Have and Control Want

(b) A significant correlation ($r = .44, p < .001, n = 88$) was found between *Telephone Control Have* and *Telephone Control Want*. (c) A significant correlation ($r = .29, p < .01, n = 85$) was also found between *General Control Have* and *General Control Want*. The results suggest that there was not much room for variability between each of the two measures. However, the measures continued to operate separately.

Telephone Control and General Control

(d) A significant difference [$t(86) = 5.67, p < .001$] was found between all parental reports of *Telephone Control Have* ($M = 3.08$, $SD = 1.61$) and *General Control Have* ($M = 4.14$, $SD = 1.47$). (e) A t-test also revealed a significant difference [$t(85) = 2.37, p < .05$] between all parental reports of

Telephone Control Want ($M = 3.25$, $SD = 1.91$) and *General Control Want* ($M = 2.73$, $SD = 1.54$). The significant differences found between the *Telephone* and *General Control* measures suggest that the scores were different on both sets of measures. Consequently, the *Telephone Control* and *General Control* measures remained separate. Due to the relevance within the current study, the *Telephone Control* measures were used for later calculations involving control.

The Control Hypothesis: Adolescent Telephone Use and Parental Control

The Control Hypothesis predicted that there would be a significant relationship between adolescent telephone use and one or more of the two forms of parental control. All reports were by parents only. Further, as this analysis involved the *Telephone Use* measure, only parents whose adolescents participated in the study were included.

Telephone Use and Control Have

(a) A weak correlation was found between *Telephone Use* and *Control Have* for female adolescents ($r = .26$, $p > .05$, $n = 40$). In contrast, a strong correlation between *Telephone Use* and *Control Have* was found for male adolescents ($r = .56$, $p < .001$, $n = 39$).

Telephone Use and Control Want

(b) A very strong correlation was found between *Telephone Use* and *Control Want* for females ($r = .80$, $p < .001$, $n = 40$). A strong correlation between *Telephone Use* and *Control Want* was also found for male adolescents ($r = .49$, $p < .01$, $n = 39$). Table 9 displays the correlation coefficients for *Telephone Use* and the two forms of Parental *Control* for female and male adolescents.

Table 9: Correlation Coefficients for Telephone Use and Control as Reported by Parents

	Females	Males
Control Have	0.26	0.56*
Control Want	0.8*	0.49*

In sum, there was sufficient evidence to accept the Control Hypothesis for males. For females, the Control Hypothesis was most especially supported for the control a parent wanted, but not for the control a parent had.

The Conflux Hypothesis: Parent-Adolescent Conflict over Telephone Use and the Conflux of Adolescent Independence and Parental Control

The Conflux Hypothesis predicted that there would be a significant relationship between *Parent-Adolescent Conflict* over adolescent telephone use and the combination (*Conflux*) of *Adolescent Independence* and *Parental Control*. There were two different combinations of *Adolescent Independence* and *Parental Control*. The first combination involved a *Parent Having Control* and an *Adolescent Desiring Independence*. The second combination involved an *Adolescent Having Independence* and a *Parent Desiring Control*.

As the analysis involved the *Conflict* measure, the two different Conflux combinations were analysed separately for adolescents and parents (making four conflict calculations), and for females and males (making a total of eight conflict calculations). Further, as the conflux measure involved combining adolescent independence and parental control together, only adolescents whose parents participated in the study were included.

The correlation coefficients for *Conflict* and the *Conflux of Adolescent Independence and Parental Control* ranged from no association of -.01 to a strong relationship of .81. Anything above .39 was considered a strong relationship.

The Conflux Hypothesis: Part One: Parent Has Control and Adolescent Desires Independence

Part one of the Conflux Hypothesis predicted that there would be a significant relationship between parent-adolescent conflict and the conflux of control a parent had and independence an adolescent desired. The following correlation analysis investigated the relationship between Conflict and the Conflux of Control Have and Independence Want.

(a) A weak correlation was found between *Conflict* and the *Conflux of Control Have and Independence Want* for females ($r = .18, p > .05, n = 40$), as reported by adolescents. A strong correlation was found between *Conflict* and the *Conflux of Control Have and Independence Want* for males ($r = .50, p < .01, n = 39$), as reported by adolescents. A strong correlation was found between *Conflict* and the *Conflux of Control Have and Independence Want* for both females ($r = .39, p < .02, n = 40$) and males ($r = .65, p < .001, n = 39$), as reported by parents. Table 10 shows the results of the correlations between *Conflict* and the *Conflux of Control Have and Independence Want* for females and males, as reported by adolescents and parents.

Table 10: Correlation Coefficients for Parent-Adolescent Conflict and the Conflux of **Control Have** and **Independence Want** as Reported by Adolescents and Parents for Females and Males

	Females	**Males**
Adolescent	0.18	0.5*
Parent	0.39*	0.65*

The Conflux Hypothesis: Part Two: Adolescent Has Independence and Parent Desires Control

Part two of the Conflux Hypothesis predicted that there would be a significant relationship between parent-adolescent conflict and the conflux of independence an adolescent had and control a parent desired. The following correlation analyse investigated the relationship between Conflict and the Conflux of Independence Have and Control Want.

(b) Weak correlations between *Conflict* and the *Conflux of Independence Have and Control Want* were found for females ($r = .04, p > .05, n = 40$) and males ($r = .12, p > .05, n = 39$), as reported by adolescents. Both correlations were not significant. A strong correlation between *Conflict* and the *Conflux of Independence Have and Control Want* was found for female ($r = .62, p < .001, n = 40$) and male ($r = .44, p < .01, n = 39$) adolescents, as reported by parents. Table 11 contains the results of these correlations for females and males, as reported by adolescents and parents.

Table 11: Correlation Coefficients for Parent-Adolescent Conflict and the Conflux of **Independence Have** and **Control Want** as Reported by Adolescents and Parents for Females and Males

	Females	**Males**
Adolescent	0.04	0.12
Parent	0.62*	0.44*

In sum, the Conflux Hypothesis was supported for *Parent-Adolescent Conflict* and the *Conflux of Control Have and Independence Want* for males, and for females but only as reported by parents. The Conflux Hypothesis was supported for *Parent-Adolescent Conflict* and the *Conflux of Independence Have and Control Want* for both females and males, as reported by parents.

The following three sections involve analyses which were exploratory and not intended to be inferential. The sample sizes are small and consequently, not reliable.

The High Telephone Group

Adolescents who had an individual score greater than one standard deviation above the mean (> 3.65), or one hour 48 minutes, and had data for their parents, were placed in the *High Telephone Group* . There were 13 females and five males in the *High Telephone Group*. Adolescents who had a score equal to or between one standard deviation above and below the mean (= or < 3.65, = or > 0.85), or one hour 48 minutes and 24

minutes, and had data for their parents, were placed in the *Moderate Telephone Group*. The *Moderate Telephone Group* consisted of 27 females, 34 males and four individuals who did not state their sex. Due to the nature of the skewed distribution, a low telephone use group did not exist.

Descriptive Statistics

(a) The average amount of daily time spent on the telephone for the 11% of adolescents classified as being in the *High Telephone Group* was two hours and 15 minutes (SD = 21 minutes, n = 18). The average amount of daily telephone use for the *Moderate Telephone Group* was 54 minutes (SD = 21 minutes, n = 65).

Telephone Use and Parent-Adolescent Conflict

(b) A weak correlation between *Telephone Use* and *Conflict* was found for females (r = .16, p > .05, n = 13) and males (r = -.19, p > .05, n = 5) in the *High Telephone Group*, as reported by adolescents. A strong correlation between *Telephone Use* and *Conflict* was found for females (r = .39, p < .05, n = 27) and males (r = .46, p < .01, n = 34) in the *Moderate Telephone Group*, as reported by adolescents. Similarly, a weak correlation was found between *Telephone Use* and *Conflict* for females (r = .13, p > .05, n = 13) and males (r = -.16, p > .05, n = 5) in the *High Telephone Group*, and a strong correlation was found between *Telephone Use* and *Conflict* for female (r = .48, p < .02, n = 27) and male (r = .56, p < .001, n = 34) adolescents in the *Moderate Telephone Group*, as reported by parents. These results are presented in Table 12.

Table 12: Correlation Coefficients for Telephone Use and Conflict for Females and Males in the High and Moderate Telephone Groups as Reported by Adolescents and Parents

	Adolescents		Parents	
	Females	**Males**	**Females**	**Males**
High Telephone Group	0.16	-0.19	0.13	-0.16
Moderate Telephone Group	0.39*	0.46*	0.48*	0.56*

The Frustrated Independence Group

This section looked at the 20% (n = 32) of adolescents who indicated a *Frustrated Independence* score (independence they wanted but did not have). To ensure that a third independence measure could be set up, a t-test was used to compute the difference between adolescent *Telephone Independence Have* and *Telephone Independence Want*.

(a) There was a significant difference [$t(159) = 9.76, p < .001$] between adolescents' reports of *Telephone Independence Have* ($M = 4.74$, $SD = 1.82$) and *Telephone Independence Want* ($M = 2.65$, $SD = 1.93$). The difference suggested that the scores on each of the two measures were different. Therefore, a third independence measure was derived from these two measures, which represented *Frustrated Independence*.

The *Frustrated Independence* measure (*Independence Want* minus *Independence Have*) had a mean of -2.09 ($SD = 2.70, n = 160$). A negative score meant no frustration (individuals had as much independence as they wanted). However, 20% of the adolescents had positive scores, which suggested that they displayed frustrated independence (individuals wanted more independence than they had). (b) A mean of 2.09 and standard deviation of 1.03 was recorded for the 32 adolescents in the *Frustrated Independence Group*. This group consisted of 16 female adolescents, 13 male adolescents and three adolescents in the *Frustrated Independence Group* did not specify their sex. The average *Independence* scores for the *Frustrated Independence Group* are recorded in Table 13.

Table 13: Average Scores for Telephone Independence for the Frustrated Independence Group

	n	Mean	SD
Telephone Independence Have	32	2.94	1.56
Telephone Independence Want	32	5.03	1.67
Frustrated Independence	32	2.09	1.03

Only adolescents who displayed *Frustrated Independence* and only parents who had adolescents in the *Frustrated Independence Group* were included in the following calculations. Further, 14 adolescents who displayed *Frustrated Independence* did not have parents who participated in the study. Therefore, these 14 adolescents were not included in calculations which involved parental reports. This was true of the analysis using the Conflux measure, which involved the combination of *Frustrated Adolescent Independence* and *Parental Control*.

Frustrated Independence and Telephone Use

(c) A weak correlation was found between *Frustrated Independence* and *Telephone Use* for female ($r = .33, p > .05, n = 16$) adolescents. A strong correlation was found between *Frustrated Independence* and *Telephone Use* for male ($r = .65, p < .01, n = 13$) adolescents.

Conflict and the Conflux of Control Have and Frustrated Independence

(d) A strong but non-significant correlation between *Conflict* and the *Conflux of Control Have and Frustrated Independence* was found for females ($r = .40, p > .05, n = 9$) and a weak correlation was found for males ($r = .21, p > .05, n = 9$), as reported by adolescents. A strong but non-significant correlation between *Conflict* and the *Conflux of Control Have and Frustrated Independence* was found for females ($r = .43$, $p > .05, n = 9$) and a strong correlation was found for males ($r = .81$, $p < .01, n = 9$), as reported by parents. These results are presented in Table 14.

Table 14: Correlation Coefficients for Parent-Adolescent Conflict and the Conflux of **Control Have** and **Frustrated Independence** as Reported by Adolescents and Parents for Females and Males.

	Females	**Males**
Adolescent	0.4	0.21
Parent	0.43	0.81*

The Frustrated Control Group

This section looked at the 34% (n = 30) of parents who indicated a *Frustrated Control* score (control they wanted but did not have). A t-test was computed between the control a parent had and the control a parent wanted, to determine whether a third control measure could be developed.

(a) A *t*-test revealed no significant difference [$t(87) = .85, p > .10$] between parental reports of *Telephone Control Have* ($M = 3.08$, $SD = 1.61$) and *Telephone Control Want* ($M = 3.25$, $SD = 1.91$). The result suggested that the scores on the two measures were similar. However, a *Frustrated Control* measure was still derived, due to the fact that some individual scores would have been different. The *Frustrated Control* measure was derived by subtracting *Control Want* from *Control Have*.

The overall *Frustrated Control* measure included parents who reported that they were not frustrated. In other words, these parents were satisfied with the telephone control they had. Therefore, only the parents who displayed a positive score on the *Frustrated Control* measure (those parents who reported wanting more control than they had) were included in calculations involving the *Frustrated Control Group*. Thirty parents had a positive *Frustrated Control* score, (b) with a mean of 2.13 and a standard deviation of 1.33.

Only parents who displayed *Frustrated Control* and only adolescents who had parents in the *Frustrated Control Group* were included in the following calculations. Further, parents who displayed *Frustrated Control* but did not have adolescents who participated in the study were not

included in the calculations. This was true of the analysis using the *Conflux* measure, which involved the combination of *Adolescent Independence* and *Frustrated Parental Control*.

Telephone Use and Frustrated Control

(c) A strong correlation was found between *Telephone Use* and *Frustrated Control* for female ($r = .68, p < .001, n = 18$) adolescents. In contrast, a weak correlation was found between *Telephone Use* and *Frustrated Control* for male ($r = -.01, p > .05, n = 9$) adolescents.

Conflict and the Conflux of Independence Have and Frustrated Control

(d) The following correlation coefficients were found between *Conflict* and the *Conflux of Independence Have and Frustrated Control* for female ($r = .32, p > .05, n = 9$) adolescents and male ($r = -.49, p > .05, n = 9$) adolescents, as reported by adolescents. A weak correlation between *Conflict* and the *Conflux of Independence Have and Frustrated Control* was found for female ($r = .30, p > .05, n = 9$) adolescents and male ($r = -.01, p > .05, n = 9$) adolescents, as reported by parents. Each of these four correlations were not significant. These correlation coefficients are recorded in Table 15.

Table 15: Correlation Coefficients for Parent-Adolescent Conflict and the Conflux of **Independence Have** and **Frustrated Control** as Reported by Adolescents and Parents for Females and Males

	Females	**Males**
Adolescent	0.32	-0.49
Parent	0.3	-0.01

CHAPTER FOUR

DISCUSSION

Summary of Major Findings

The results show that both telephone use and parent-adolescent conflict were higher for females than males. Although females used the telephone more than males, these high users did not report high conflict over their telephone use. However, there was such a relationship in adolescent boys and in the reports of parents of both girls and boys.

The more male adolescents used the telephone, the more they desired independence. A similar relationship was not found between telephone use and independence for females. Parents reported having control of male telephone use but as this use increased, parents wanted more control than they had. Parents reported low control over female telephone use and the more the telephone was used, parents wanted more control than they had over telephone use.

It was found that when high parental telephone control opposed an adolescents desire for independence, parent-adolescent conflict over the telephone was also high for males and for parents of females and males. Similarly, when high adolescent telephone independence opposed a desire for parental control, parent-adolescent conflict was high for parents of both genders.

The above details will be expanded upon below. Following this amplification, the gender and generational differences found throughout the study will be examined. Subsequently, the findings of the extreme groups will be reviewed. The chapter will conclude with the strengths and weaknesses of the study and finally, future prospects for additional research in the area of adolescent telephone use and parent-adolescent conflict will be presented.

Female adolescents spent more time on the telephone than male adolescents did. On average, female adolescents spent one hour and 24 minutes on the telephone a day, whereas males had a daily telephone use of 51 minutes. Out of a possible seven hours, the longest telephone call made by a female adolescent within a month was recorded as seven hours. For males, the longest telephone call made within a month was reported as five hours.

Both parents and adolescents reported that adolescents spent more time on the telephone during the weekends than the weekdays. This difference was expected due to the greater amount of spare time adolescents have to use the telephone during the weekends, as opposed to the weekdays when they are at school.

Female adolescents experienced more parent-adolescent conflict over their telephone use than did males. This finding is consistent with the results of a study by Ellis-Schwabe and Thornburg (1986) who found that telephone use was a consistently high area of conflict for females with both parents, and especially with fathers. Similarly, Smetana (1988) and Montemayor (1982) found adolescent girls to have a greater number of conflicts in general. In contrast, Galambos and Almeida (1992) found that both female and male adolescents were equally likely to be in conflict with parents.

Evolutionary theories on parent-adolescent conflict suggest that males should exhibit more conflict than females because they are the sex that leaves the natal group. Females are more likely to remain in the natal group and form permanent bonds with their mothers and sisters. The findings in this study contradict the evolutionary explanation because females exhibited more conflict than males. The finding of this study cannot be used to challenge evolutionary theory as the parent-adolescent conflict examined in this study was only related to the telephone.

Adolescents reported conflict over telephone use to be more frequent than did their parents. Similarly, Smetana (1988) found that adolescents reported more conflict than parents did, and in a later study by Smetana (1991) adolescents rated conflict as more severe and frequent than did

their mothers. The current study differs from the results of a longitudinal study by Galambos and Almeida (1992) which found that parents reported higher levels of conflict than adolescents did.

Adolescents and parents reported that conflict over telephone use was higher during the weekdays than the weekends. This difference was not expected. It was expected that conflict would be higher during the weekends, which can be explained with reference to the above section on telephone use, where adolescents have more time to use the telephone during the weekend. For this reason, the possibility of conflict heightening during periods of increased telephone use seems likely. However, the results did not support this presumption.

Female and male adolescents reported similar scores for the measures of their independence. Coleman (1974) reported that independence has different meanings for females and males. Therefore, if females and males view independence differently, a discrepancy in their independence scores would be expected. However, independence gender differences were not found in the current study.

Parents reported that they had more general control than telephone control. Further, parents reported wanting more telephone control than general control. One may speculate that parents had more control in other areas of their adolescent offspring's lives, but not in the area of telephone use. Smetana (1994) found that adolescents were not so agreeable to parents controlling their personal areas.

The Conflict Hypothesis: The Relationship between Telephone Use and Parent-Adolescent Conflict

The Conflict Hypothesis predicted that adolescent telephone use would have a significant and positive relationship with parent-adolescent conflict. As hypothesised, male adolescent telephone use was related to high parent-adolescent conflict. The results of this relationship reported by parents and male adolescents are consistent with findings by Ellis-Schwabe

and Thornburg (1986) and Smetana (1989). Both of these studies found telephone use to be an area of conflict between adolescents and parents.

Parents reported a stronger relationship between telephone use and parent-adolescent conflict for females as opposed to males. This relationship is consistent with other findings within the current study that indicate both telephone use and parent-adolescent conflict to be higher in females as opposed to males.

In contrast, female adolescents reported no relationship between their telephone use and parent-adolescent conflict. Due to the inconsistency of this finding and strength of the relationships reported by parents and male adolescents, there is reason to believe that female adolescents may either underestimate or unfairly report the relationship between their telephone use and parent-adolescent conflict. Whatever the case may be, the current study has evidence to suggest that parents report female adolescent telephone use is related to parent-adolescent conflict, but when female adolescent data is used, this prediction is rejected.

The Independence Hypothesis: The Relationship between Telephone Use and Adolescent Independence

The Independence Hypothesis predicted that adolescent telephone use would have a significant relationship with adolescent independence. As hypothesised, there was a positive relationship between telephone use and one form of adolescent independence for males. The more often males used the telephone, the more they wanted independence. There was evidence to suggest that when male adolescents used the telephone it was their way of expressing a desire for independence. Therefore, the prediction that telephone use is related to independence was supported for the independence a male adolescent wanted, but not for the independence a male adolescent had. The relationship between telephone use and the independence a male adolescent wanted, found in this study, is supported by Noller (1994) who states that, the aspiration for individual independence and less parental control is fundamental to adolescence.

Although female adolescents used the telephone a lot, they reported that their telephone use was not related to independence. Therefore, when female adolescents used the telephone it was neither an expression of the independence they had nor the independence they wanted.

In the current study, it was appropriate to test the hypothesis that adolescent telephone use was related to adolescent independence. However, this hypothesis was rejected for female adolescents who were high users and whose use of the telephone did not correlate with expressions of independence. Therefore, it is still unknown whether or not females are striving for independence from parents by using the telephone, which, in turn, is producing conflict. The lack of support for this hypothesis produces two alternative questions related to telephone use and female adolescent independence that are worthy of noting for further research.

Firstly, female adolescents may not be using the telephone directly to gain independence from parents. Instead, the link to how adolescent females are expressing their independence may be related to who they are talking to on the telephone. In this way, if female adolescents are conversing with their peers, then telephone use could be a reflection of independence in that females are relying more on peer influences (through the use of the telephone) than those of their parents. Small, Eastman and Cornelius (1988) support this claim by stating that peers become increasingly important as an adolescent begins developing independence.

Secondly, Smetana (1994) found that as adolescents got older, they were not so agreeable towards parents controlling their personal activities. Therefore, female adolescents may be indirectly expressing their independence by using the telephone against their parents' wishes. These additional predictions seem plausible since female adolescents both use the telephone and experience more parent-adolescent conflict over the use of the telephone than do their male counterparts.

The Control Hypothesis: The Relationship between Telephone Use and Parental Control

The Control Hypothesis predicted that there would be a significant relationship between adolescent telephone use and parental control. Small, Eastman and Cornelius (1988) stated that some parents feel as if they are losing control over their offspring and becoming powerless within the parental role as children approach adolescence. The Control Hypothesis predicted that parents would exercise control over adolescent telephone use to compensate for feelings of loss of control in other areas of adolescent behaviour. There was sufficient evidence between adolescent telephone use and parental control to support the control hypothesis.

The results indicated that telephone use was related to both the control a parent had over male adolescent use of the telephone, as well as the control a parent wanted over their sons' telephone use. Therefore, the more male adolescents used the telephone, the more parents felt as if they had control over their telephone behaviour. However, at the same time these parents wanted to have more control over male telephone use. It was assumed that parents had some control over male telephone use, but that this control was not sufficient.

The relationship between telephone use and one form of parental control was especially strong for female adolescents. The findings indicated that the more female adolescents used the telephone, the more parents wanted to have control over their telephone use behaviour. From the results, one may assume that parents did not have control over female telephone use although they really did want to have control. This assumption seems plausible as adolescent females were reported to be spending an average of one hour and 24 minutes on the telephone a day.

Overall, as hypothesised, there was a positive relationship between telephone use and parental control. There was enough evidence to accept the prediction that adolescent telephone use was related to the control a parent wanted for both females and males and the control a parent had for males. The results of the Conflict Hypothesis are consistent with the findings of Smetana (1989). The results of a study by Smetana suggested

that parents were often unwilling to give up their control over regulating adolescent activities.

The Conflux Hypothesis: The Relationship between Parent-Adolescent Conflict and the Conflux of Adolescent Independence and Parental Control

The Conflux Hypothesis predicted that there would be a significant relationship between parent-adolescent conflict over the use of the telephone and the combination of adolescent independence and parental control. Part one of the Conflux Hypothesis predicted that there would be a relationship between parent-adolescent conflict and the conflux of control a parent had and independence an adolescent desired. Part two of the conflux hypothesis predicted that there would be a relationship between parent-adolescent conflict and the conflux of independence an adolescent had and the control a parent desired.

Part One: Parent Has Control and Adolescent Desires Independence

A strong relationship was found between parent-adolescent *conflict* over adolescent telephone use and the conflux of *control* a parent *had* and the *independence* a male adolescent *wanted*. This relationship was found for both male adolescent and parental reports, although a slightly stronger relationship was found for parental reports. Therefore, when high parental control opposed a male's desire for telephone independence, parent-adolescent conflict over the telephone was also high.

As with males, a relationship was found between parent-adolescent *conflict* and the conflux of *control* a parent *had* and telephone *independence* a female *wanted*. This relationship was only found for parental reports and implies that parent-adolescent conflict was high when the independence a female adolescent wanted opposed the telephone control a parent had.

Part Two: Adolescent Has Independence and Parent Desires Control

A strong relationship was found between parent-adolescent *conflict* and the conflux of *independence* an adolescent *had* and telephone *control* a parent *wanted* for both females and males, as reported by parents. Therefore, when high adolescent independence opposed a parent's desire for telephone control, parent-adolescent conflict was also high. Adolescent reports did not support this relationship.

In sum, parents consistently reported that both combinations of adolescent independence and parental control were related with parent-adolescent conflict, for females and for males. The differences, however, were in the strength of these relationships.

Parents and males had similar reports on only one relationship related to parent-adolescent conflict over male telephone use. This relationship was the conflux of *control* a parent *had* and *independence* a male *wanted*. This conflux combination was also the strongest relationship found to be related with conflict over male telephone use.

Parents and females had no similar reports on any of the relationships between the conflux of adolescent independence and parental control and parent-adolescent conflict over female telephone use. Interestingly, females did not report that any of the conflux combinations were related to parent-adolescent conflict over their use of the telephone. The strongest relationship found for females to be related with conflict over their telephone use, was the conflux of *independence* an adolescent *had* and the *control* a parent *wanted*.

Most specifically, the findings from parental reports in the current study suggest that conflict is related to the conflux of adolescent independence and parental control. These findings are consistent with the work on family conflict by Smetana (1989). Smetana found that conflict emerged when an adolescent was trying to obtain independence and this competed with a parents attempt of maintaining authority.

The results from this study also support the cognitive-developmental theory of conflict. This theory stated that as adolescents gained cognitive maturation, certain areas usually perceived under parental control were now regarded by adolescents as subject to their personal decision. This discrepancy about who had control of particular areas was believed to generate conflict between the adolescent and parent (Smetana, 1988).

Atwater (1992) states that a parent's 'mid-life crisis' often concurs with adolescence, whereby both adolescents and parents are at critical stages in their developments but are moving in opposite directions. Further, there is evidence in the published research that parent-adolescent conflict is not only a result of changes within an adolescents' behaviour, or changes in a parents' behaviour, but rather of changes in both (Hinde, 1966). The combinations of adolescent independence and parental control investigated in this study support such research, as these concepts were correlated with parent-adolescent conflict together, rather than individually.

The current study has suggested that there is a positive relationship between parent-adolescent conflict over the telephone and the conflux of adolescent telephone independence and parental telephone control. That is, when adolescent telephone independence and parental telephone control are in opposition, then one sees high levels of conflict over the two. However, the current study does not reveal whether the relationship between parent-adolescent conflict and the conflux of adolescent independence and parental control is specifically about time spent on the telephone, or alternatively about which of the generations has responsibility to decide the length of time adolescents spend on the telephone (Cobb, 1995).

Gender Differences

Gender differences were apparent throughout most of the present research. Females spent more time on the telephone and had more parent-adolescent conflict over the use of the telephone than did male adolescents. Although males had less conflict over the telephone than females, what conflict they did have was more consistently reported to be related to telephone use than it was for females. Further, telephone use

was associated with independence in boys, but not girls. Parents reported having control over male telephone use, whereas a similar relationship was not found for females.

One participant commented on gender differences related to this study without prompting. That adult referred to a male adolescent while filling out the questionnaire, and then concluded, "If I was referring to my 17 and a half-year-old daughter my answers would be very different. I've *smashed* two phones!! Three hours plus per day for two-three years!!"

Male adolescents reported that their telephone use was related to parent-adolescent conflict, where as females did not. Similarly, male adolescents reported that their telephone use was related to a desire for independence, whereas female adolescents reported no relationship at all between their telephone use and independence. Parents reported gender differences for the relationship between telephone use and the control that they had over adolescent use of the telephone. Again, a relationship was found for males but not females.

Further, the findings show that parent-adolescent conflict over telephone use had a strong relationship with the conflux of independence a female had and the control a parent wanted. One may assume that female adolescents had independence when using the telephone and parents did not have control. This indicates that whenever high female independence opposed a parent's desire for control over the telephone, conflict was also high. This relationship was reported by parents.

In contrast, the strongest relationship found for males, also reported by parents, was between parent-adolescent conflict and the conflux of control a parent had and independence a male adolescent wanted. Therefore, when high parental control opposed a male's desire for independence, more parent-adolescent conflict was experienced within the household. So, it may be assumed that male adolescents did not have independence when using the telephone but parents had control.

From the results, it can be assumed that adolescent females had a sufficient amount of telephone independence, whereas male adolescents wanted more. Parents had a sufficient amount of control over male telephone use

but not over female telephone use. Therefore, the combination of independence a male adolescent *wanted*, and the control a parent already *had*, exhibited a strong relationship with parent-adolescent conflict. However, for females, a different relationship was revealed. The combination of independence a female adolescent already *had*, and the control a parent *wanted*, had a strong relationship with parent-adolescent conflict.

Adolescent and Parental Differences

There were differences between adolescent and parental reports throughout the current study. On average, parents reported stronger relationships between the concepts investigated within this study than did adolescents. Interestingly, reports that male adolescents made were more closely associated with parental reports than were those of their female counterparts.

Parents and adolescents did not differ in their reports of the amount of time adolescent individuals spend on the telephone. Adolescents reported more parent-adolescent conflict over the telephone than did their parents. Parents and male adolescents reported a relationship between telephone use and parent-adolescent conflict, however female adolescents did not. Further, parents reported four of the five strong relationships found between parent-adolescent conflict and the conflux of adolescent independence and parental control.

The differences between adolescent and parental reports within this study sway towards parents reporting stronger relationships between the investigated concepts. This leads to a number of suppositions. Firstly, adolescents may underestimate the extent of the effects of their telephone use, while parents may overestimate these effects. Adolescents and parents may perceive the effects of telephone use in different ways. Further, the effects of adolescent telephone use may have a more relevant and important place in the daily lives of parents than adolescents. Whatever the reason, adolescents and parents only occasionally agreed in their reports of the concepts examined throughout this study.

In conclusion, the present study had sufficient evidence to report a relationship between adolescent telephone use and parent-adolescent conflict over telephone use. Further, relationships were also found between parent-adolescent conflict and the conflux of adolescent independence and parental control. Specifically, the findings suggest that female adolescents had independence when using the telephone, but parents did not have control of their daughters' telephone behaviour, and male adolescents did not have independence when using the telephone, although parents had control over their sons' telephone use.

However, since this study was correlational, it was impossible to know if telephone use caused conflict or whether the conflict caused an increase in adolescent telephone use. Hence, it is unknown whether or not disputes over the telephone are producing conflict or whether the conflict already exists and is pushing adolescents away from their parents towards their peers, with the only way of making such contact being over the telephone. Due to the correlational nature of the study, it was also impossible to conclude that parent-adolescent conflict over adolescent use of the telephone was caused by the convergence of adolescent independence and parental control.

The High Telephone Group

Eleven percent of adolescents had high telephone use. On average, the high telephone users spent over two hours on the telephone a day, while moderate telephone users spent under an hour a day. Interestingly, adolescents with high telephone use did not report correspondingly high parent-adolescent conflict. In fact, there was a stronger relationship between parent-adolescent conflict and telephone use for adolescents in the moderate telephone group. Therefore, high telephone users did not experience more parent-adolescent conflict than moderate telephone users.

The Frustrated Independence Group

Many of the following relationships between the investigated concepts for both the frustrated independence and frustrated control groups were

strong but not significant. This is likely to be due to the small number of cases. For this reason, these relationships were seen as still being important.

Frustrated independence was related to telephone use in both females and especially males. This relationship suggests that as telephone use increased, so did the independence these frustrated adolescents wanted but did not have.

A strong relationship was found between the *control* a parent *had* and the *frustrated independence* an adolescent had and parent-adolescent *conflict* over the telephone, as reported by females and parents of both males and females. This relationship suggests that when high parental control opposes an adolescents desire for more independence than they have, parent-adolescent conflict is also high. This relationship was especially strong (and significant) for males, as reported by parents.

The Frustrated Control Group

Female telephone use was related to frustrated parental control, suggesting that the more female adolescents used the telephone, the more parents wanted telephone control but did not have it. No such relationship was found for male adolescents. Interestingly, the conflux of independence an adolescent had and the frustrated control a parent had was not related to parent-adolescent conflict for females or males.

Strengths and Weaknesses of the Study

It is important to draw attention to the limitations that were placed on the current research. Specifically, the measure used in this investigation did not contain relevant psychometric properties. An examination of the literature revealed that no research had been published in the area of adolescent telephone use and parent adolescent conflict, and therefore the questionnaire was designed and developed by the researcher. The questionnaires used in this study contained straightforward questions that were based on existing parent-adolescent conflict literature. Therefore,

because of the forthright nature of the questions, it was hoped that the lack of empirical support for the measures would not be problematic. Overall, the questionnaires provided sufficient responses to carry out the intended investigation on the relationship between adolescent telephone use and parent-adolescent conflict.

In hindsight, the use of a self-report questionnaire created limitations within the study. As mentioned earlier, adolescent and parental reports of important concepts outlined in the study did not always agree with one another, creating inconsistency within the analyses. To ensure accurate reporting of adolescent telephone use, the researcher could have contacted 'Telecom' to obtain information regarding the length of individual phone calls. However, due to time and financial constraints placed on the research, this was not an available option. Further, adolescent independence, parental control and parent-adolescent conflict are rather difficult concepts to measure without the use of self-reporting.

Further limitations produced by the questionnaire include the questions relating to independence. After reading the literature on parent-adolescent conflict and adolescent independence, and prior to collecting the data, the researcher assumed that the majority of adolescents would want more independence than they actually had. The findings proved this speculation inaccurate. The majority of adolescents in this study reported having as much independence as they wanted and due to this, a third independence measure was set up to identify those individuals who reported wanting more independence than they had. Only 20% of adolescents indicated that they wanted more independence than they had (referred to as frustrated independence in the study). These adolescents were important in the study because it was hypothesised that telephone use was one of the first areas where adolescents began to display their desire for independence and that this would lead to conflict with parents. However, with such a low percentage of individuals who wanted more independence than they had in this study, a lot of the relationships analysed for these adolescents were non-significant. Therefore, it would have been reasonable to investigate a greater number of individuals who wanted more independence than they had. This problem could be eliminated in future research by pilot testing.

Another weakness imposed on this study is that only one parent per adolescent was included in the sample. This placed limitations on a representative parental sample. Additionally, if both parents had participated, it would have been interesting to see if mothers experienced more conflict with their adolescents over telephone use than fathers. Previous research has found mothers to have more conflict with adolescents, and more specifically, mothers and daughters (Montemayor, 1982). Further, more specific details on participants should have been collected, to ensure that the sample was representative of the population.

Although the study had a number of weaknesses, there were also some strengths. Firstly, no other research on adolescent telephone use and parent-adolescent conflict has been completed to date. As this research has shown, adolescent telephone use is an area of conflict between adolescents and parents. Therefore, in order to improve the understanding of, and perhaps eliminate, such disagreement, research in this area is important. Further, the current research may encourage future research in this area, which in time could prove beneficial to household conflict over the telephone.

The use of a conflux measure in the study was also an original idea. As it was hypothesised that two independent concepts (adolescent independence and parental control) were related with one other concept (parent-adolescent conflict), the two independent concepts had to be converted into one statistical figure (a conflux). This conflux measure has not been used before.

Future Directions

The conclusion of this current study has raised additional questions and further research in this area would benefit from including extra lines of inquiry. Specifically, an investigation into parental telephone behaviour would be of interest. Here, parents who themselves spend a lot of time on the telephone may place limits on adolescent telephone use because they want the line free for their own telephone time. Lack of opportunity for telephone use for these adolescents may result in increased parent-adolescent conflict over a limited resource. Also, such high using

parents may be models for adolescent telephone behaviour. Further, parents who rarely use the telephone could have a lack of concern regarding the length of time their adolescent spend on it, hence a low degree of conflict.

Future research could examine parenting styles. The reason for this is that one would expect to find increased parent-adolescent conflict over telephone use and decreased adolescent independence in a household that had an over-controlling, authoritarian parent. In contrast, one would expect less parent-adolescent telephone use conflict from a household adopting a laissez-faire approach. However, parenting styles would be difficult concepts to measure with self-reports, as the parenting style a parent believes they adhere to may be different to the parenting skills they actually practice. Here, a questionnaire would be more accurate.

The current study failed to establish a relationship between telephone use and adolescent independence for females. One important direction for future research in this area includes establishing exactly who adolescent individuals are conversing with on the telephone. One may predict that it would be their peers and if so, it may be that talking to their peers is related to adolescent independence and parent-adolescent conflict, as opposed to the telephone directly. After all, evolutionary theories propose that conflict between parents and adolescents provides reason for adolescents to focus on peer relationships, which eventually encourages them to procreate outside of the immediate family (Laursen & Collins, 1994). Further, if adolescents are talking with their peers on the telephone, this may be an important link as to why telephone use increases dramatically during the adolescent years. Also, if males are talking with females, the female penchant for long calls might be influencing and increasing male telephone use.

With modern technology updating so rapidly these days, future research in this area should take into consideration advances to the current telephone system. Such advancement includes the additional extras that are offered by telephone companies to telephone users. One participant summed up the point that is being made here by writing at the bottom of her questionnaire form, "Call waiting relieves the problem - if a call beeps they know they have to get off." Theoretically, it could be assumed that

households with call waiting may have less parent-adolescent conflict because an adolescent could terminate a telephone call on receiving an incoming call, hence relieving a parent's concern of missing important telephone calls. However, call waiting is not hard to ignore and at the time unknown to parents.

Finally, another area similar to the telephone that would be worthy of investigation in future research includes adolescent chat lines found on the Internet. The Internet operates through the same line as the telephone. For households with both a telephone, access to the Internet and only one telephone line, this may present additional areas of conflict between adolescents and their parents.

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APPENDIX ONE

The Telephone Years: The Relationship Between Adolescent Telephone Use and Parent-Adolescent Conflict

Adolescent Information Sheet

Massey University
Private Bag 11-222
Palmerston North

My name is Kathryn Wild and I am a fifth year psychology student at Massey University. This is my second year of study towards a Master of Arts. This research will be presented in partial fulfilment of the requirements for the degree of Master of Arts in Psychology at Massey University. If, for any reason, I need to be contacted, my phone number is (06) 3294770.

My research supervisor is Arnold Chamove, a staff member of the Massey University Psychology Department. If, for any reason, he needs to be contacted, his number is (06) 3504124.

The purpose of this study is to investigate the relationship between adolescent use of the telephone and adolescent/parental negotiations of its use. Each person will be required to fill out a questionnaire, which should take approximately 10 minutes. You will be asked questions relating to time spent on the telephone, adolescent independence and adolescent/parental difference of opinion over telephone use.

You have the right to stop after reading this Information Sheet. However, if you would like to take part in the study, you are asked to read and complete the attached Consent Form. Following this, if you agree to take part in the study you have the right to withdraw at any time and to refuse to answer any particular questions at any time. Participation is entirely voluntary and will not affect schoolwork in any way, in fact no one at the school will see any of what is said.

The researcher will need 100 adolescents, 50 females and 50 males, between the ages of 13 and 14, to fill out questionnaires. The researcher will also need one parent or caregiver of each adolescent that completes a questionnaire, to fill out a separate questionnaire. You will need to take a questionnaire home to one of your parents or caregivers, which will then be returned to the researcher in a stamped, addressed envelope.

I wish to see how families decide who uses the telephone, and for how long. Completed questionnaires will be kept in a combination locked case, until such time as the data has been entered and analysed. Following this, all questionnaires will be destroyed.

All information received will be confidential. The information will be used only for the purpose of this research, and any publications resulting from it.

You are entitled to ask any questions about the study at any time and will be given access to a summary of the findings of the study when it is finished, should you ask for it. You have the right to provide information on the understanding that your name will not be used.

APPENDIX TWO

The Telephone Years: The Relationship Between Adolescent Telephone Use and Parent-Adolescent Conflict

Adolescent Consent Form

Massey University
Private Bag 11-222
Palmerston North

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I understand I have the right to withdraw from the study at any time, without giving any reason. I also understand I have the right to decline to answer any particular questions.

I agree to provide information to the researcher on the understanding that my name will not be used in any way. The information will be used only for this research and publications arising from this research project.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signed: .....

Name: .....

Date: .....

APPENDIX THREE

The Telephone Years: The Relationship Between Adolescent Telephone Use and Parent-Adolescent Conflict

Adolescent Questionnaire Form

You have the right to refuse to answer any particular question, or to stop whenever you would like. ***Please circle the number (1-7)*** that you believe most appropriately applies to you. If you have any further questions, please contact the researcher.

(e.g.) *I enjoy filling out questionnaires:*

1	2	3	4	5	(6)	7
Not at all			Sometimes			Always

Sex: Male Female

1) ***How much time do you spend on the telephone?***

Weekday:

1	2	3	4	5	6	7
30 mins	1 hour	1 hour 30 mins	2 hours	2 hours 30 mins	3 hours	3 hours plus

Weekend:

1	2	3	4	5	6	7
30 mins	1 hour	1 hour 30 mins	2 hours	2 hours 30 mins	3 hours	3 hours plus

2) ***The longest call I have made this month has been:***

1	2	3	4	5	6	7
1 hour or less	2 hours	3 hours	4 hours	5 hours	6 hours	7 hours or more

3) ***I decide how long I spend on the telephone:***

1	2	3	4	5	6	7
Never			Sometimes			Always

4) ***I would like to spend more time on the telephone:***

1	2	3	4	5	6	7
I am happy with the amount of time I spend on the telephone						I would like to spend more time on the telephone

5) ***I feel I make the majority of the decisions within my life:***

1	2	3	4	5	6	7
Hardly ever			Sometimes			I always make all of my own decisions

6) ***I would like to make more of my own decisions within my life:***

1	2	3	4	5	6	7
Not at all			Sometimes			Always

7) ***The telephone causes difference of opinion in the house:***

Weekday:

1	2	3	4	5	6	7
Never			Sometimes			Always

Weekend:

1	2	3	4	5	6	7
Never			Sometimes			Always

8) ***In the last month, the telephone has caused difference of opinion in the house:***

1	2	3	4	5	6	7
Not at all			Sometimes			Frequently

I would like a copy of the results once they are completed:

Yes No

If you would like a copy of the results once they are completed, please supply **a** contact name and address to which a copy can be sent.

.....

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.....

.....

The number at the bottom of the page is there so that the researcher is able to match adolescents with parents, without identifying your name.

Thank you for your time.

APPENDIX FOUR

The Telephone Years: The Relationship Between Adolescent Telephone Use and Parent-Adolescent Conflict

Parent/Caregiver Information Sheet

Massey University
Private Bag 11-222
Palmerston North

My name is Kathryn Wild and I am a fifth year psychology student at Massey University. This is my second year of study towards a Master of Arts. This research will be presented in partial fulfilment of the requirements for the degree of Master of Arts in Psychology at Massey University. If, for any reason, I need to be contacted, my phone number is (06) 3294770.

My research supervisor is Arnold Chamove, a staff member of the Massey University Psychology Department. If, for any reason, he needs to be contacted, his number is (06) 3504124.

The purpose of this study is to investigate the relationship between adolescent use of the telephone and adolescent/parental negotiations of its use. Each person will be required to fill out a questionnaire, which should take approximately 10 minutes. You will be asked questions relating to time spent on the telephone, parental supervision and adolescent/parental difference of opinion over telephone use.

You have the right to stop after reading this Information Sheet. If you agree to take part in the study you have the right to withdraw at any time, and to refuse to answer any particular questions at any time. Participation is entirely voluntary.

The researcher will need 100 adolescents, 50 females and 50 males, between the ages of 13 and 14, to fill out questionnaires. The researcher will also need one parent or caregiver of each adolescent that completes a

questionnaire, to fill out a separate questionnaire. If you decide to take part in the study, and answer the questionnaire, you are asked to refer questions asked about your adolescent to the adolescent who has already filled out a similar questionnaire.

I wish to see how families decide who uses the telephone, and for how long. Completed questionnaires will be kept in a combination locked case, until such time as the data has been entered and analysed. Following this, all questionnaires will be destroyed.

All information received will be confidential. The information will be used only for the purpose of this research, and any publications resulting from it.

You are entitled to ask any questions about the study at any time and will be given access to a summary of the findings of the study when it is finished, should you ask for it. You have the right to provide information on the understanding that your name will not be used.

It is assumed that filling in the questionnaire implies consent.

APPENDIX FIVE

The Telephone Years: The Relationship Between Adolescent Telephone Use and Parent-Adolescent Conflict

Parent/Caregiver Questionnaire Form

You have the right to refuse to answer any particular question, or to stop whenever you would like. ***Please circle the number (1-7)*** that you believe most appropriately applies to you. If you have any further questions, please contact the researcher.

(e.g.) *I enjoy filling out questionnaires:*

1	2	3	4	5	(6)	7
Not at all			Sometimes			Always

Sex: Male Female

1) ***How much time does your son/daughter spend on the telephone?***

Weekday:

1	2	3	4	5	6	7
30 mins	1 hour	1 hour 30 mins	2 hours	2 hours 30 mins	3 hours	3 hours plus

Weekend:

1	2	3	4	5	6	7
30 mins	1 hour	1 hour 30 mins	2 hours	2 hours 30 mins	3 hours	3 hours plus

2) ***The longest call my son/daughter has made this month has been:***

1	2	3	4	5	6	7
1 hour or less	2 hours	3 hours	4 hours	5 hours	6 hours	7 hours or more

3) ***I decide how long my son/daughter spends on the telephone:***

1	2	3	4	5	6	7
Never			Sometimes			Always

4) ***I would like my son/daughter to spend less time on the telephone:***

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

5) ***I feel I make the final decisions in my son/daughter's life:***

1	2	3	4	5	6	7
Never			Sometimes			Always

6) ***I feel I need to make more of my son/daughter's decisions:***

1	2	3	4	5	6	7
Not at all			Sometimes			Always

7) ***The telephone causes difference of opinion in the house:***

Weekday:

1	2	3	4	5	6	7
Never			Sometimes			Always

Weekend:

1	2	3	4	5	6	7
Never			Sometimes			Always

8) ***In the last month, the telephone has caused difference of opinion in the house:***

1	2	3	4	5	6	7
Not at all			Sometimes			Frequently

I would like a copy of the results once they are completed:

Yes No

If you would like a copy of the results once they are completed, please supply a contact name and address to which a copy can be sent.

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The number at the bottom of the page is there so that the researcher is able to match adolescents with parents, without identifying your name.

Thank you for your time.