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**Parent-adolescent relationship variables and associations with adolescent depressive symptomatology [sic] :: a longitudinal study.**

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PARENT - ADOLESCENT RELATIONSHIP VARIABLES AND  
ASSOCIATIONS WITH ADOLESCENT DEPRESSIVE SYMPTOMATOLOGY: A  
LONGITUDINAL STUDY

A Thesis Presented

by

JEAN Y. PAO

Submitted to the Graduate School of the  
University of Massachusetts in partial fulfillment  
of the requirements for the degree of

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Department of Psychology

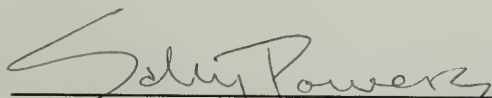
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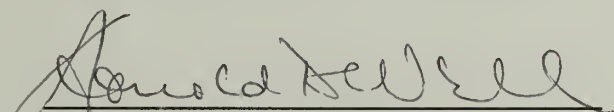
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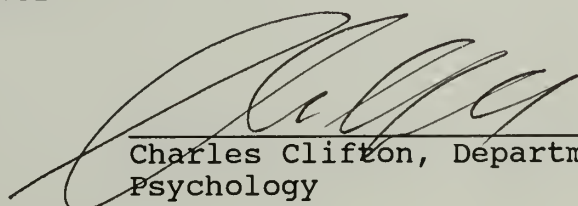
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ABSTRACT

PARENT - ADOLESCENT RELATIONSHIP VARIABLES AND  
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LONGITUDINAL STUDY

MAY 1993

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Directed by: Professor Sally Powers

The primary purpose of this study was to empirically examine the emotional buffering hypotheses which states that adolescents' attachment relationships with their parents are inversely related to psychiatric symptomatology. In addition, the study examined whether adolescent gender, parent gender, psychiatric hospitalization were predictive of symptomatology beyond the degree to which family attachment predicted symptomatology. This study also tested the emotional distancing hypothesis which suggests that adolescents' attachment to their parents decreases over time. The sample was composed of 61 hospitalized ( $n=29$ ) and non-hospitalized ( $n=32$ ) adolescents. Each adolescent was given a semi-structured interview about family relationships. Raters coded the interviews into family relationship variables of cohesion, love, support, affectionate involvement, communication and conflict. A new variable of attachment was formed using ratings of cohesion, love, support, and affectionate involvement. Depression and other kinds of symptomatology were measured with the Achenbach Youth Self Report. Results

did not support the emotional buffering hypothesis of attachment for depression nor the emotional distancing hypothesis. However, girls' attachment to mothers and to fathers in the freshman year of high school was associated with lower delinquent symptoms in the senior year of high school. Additionally, girls' attachment to fathers in the junior year of high school was associated with lower aggressive symptoms in the senior year. Communication with mothers and fathers during the freshman year of high school was associated with greater levels of depression three years later for the hospitalized adolescents.

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## CHAPTER 1

### INTRODUCTION

The primary focus of this study was to examine the adolescent-parent attachment relationship and its association to depressive symptomatology in middle adolescence. More specifically, the study examined the "emotional buffering" hypothesis (Papini, Roggman, & Anderson, 1991) which states that an adolescent's attachment to his or her parents provides a buffer for the adolescent from feelings of depression. That is, the greater an adolescent's perception of attachment to his or her parents, the greater the buffer from depression for the adolescent. In addition, this study examined whether the association between adolescent-parent attachment and depression was specific to depression or whether it was reflective of a more general association between attachment and a wide variety of other psychological symptoms. Associations between attachment and symptomatology were examined separately for both adolescent-mother and adolescent-father relationships. Family functioning patterns of communication and conflict were also examined in relation to depression. Gender differences in symptomatology and family relationship variables were also explored. Another focus of this study examined the "emotional distancing" hypothesis (Papini et al., 1991) which states that as adolescents

increase in maturity, their perceived attachment to their parents decreases.

Adolescent depression has been defined in many ways. Its presence has been determined by fulfilling a list of symptoms, satisfying a specified diagnostic criteria, or exceeding a cut-off on a continuum scale. Adolescent depression generally includes the following symptoms: being fearful, feeling anxious, feeling inferior or worthless, feeling persecuted, feeling too guilty, feeling unloved, loneliness, a need to be perfect, feeling nervous or tense, self conscious, unhappy, sad, depressed, and worried (Conners, Quay, Verhulst & Howell, 1989).

Recent research has shown that a high proportion of young people are depressed. Through structured interviews of a community sample, 4.7% of adolescents were found to have major depression according to the DSM-III criteria (Kashani, Carlson, Beck, Howeper, Corcoran, McAllister, Fallahi, Rosenberg & Reid, 1982). Knowledge of what factors buffer adolescents from depression would be useful in designing prevention and treatment strategies.

Previous theoretical and empirical work on the relationship of parent-child attachment to depression is reviewed in this chapter. Three major ways of investigating this relationship are summarized: quality of attachment styles and their relation to types of depression, current

adolescent-parent attachment and depression, and qualities of parent-adolescent relationships as indicators of attachment.

### Attachment Styles and Depression Types

In a literature review of the research on parent-child interaction and its relation to dependent and self-critical depression, Blatt and Homann (1992) summarized findings from three research strategies: 1) studying secure and insecure attachment patterns in infants and young children, 2) studying depressed mother-child interactions, and 3) studying normal and depressed adults' retrospective accounts of early caring experiences with their parents. A major conclusion of the research using these methodologies is that internal working models of representation derived from early childhood caregiving experiences are important in understanding an individual's subsequent vulnerability to depression.

Blatt and Homann (1992) outlined various kinds of attachment styles and the specific types of depression that each kind of attachment style predisposes the individual to developing. The theoretical perspectives of parent-child relationships are based primarily on the research of Bowlby (1973), Ainsworth and her colleagues (1978) and Main (1985) and each of these perspectives will be briefly reviewed here.

Bowlby (1973) conceptualized attachment theory as an attachment control system whereby the individual seeks out the caretaker to reduce the sense of danger that an infant feels.



Attachment behaviors are the output of a safety regulating system and are thought of as activities in which the individual engages in order to reduce the threat of harm so that the individual experiences an increase in sense of security and a decrease in anxiety.

Ainsworth (Ainsworth, Blehar, Waters, & Wall, 1978) created a method for empirically assessing different types of attachment styles. A child's security of attachment was assessed using Ainsworth's strange situation paradigm, in which infants were separated from parents for a brief time (3 minutes) and particular attention was paid to the infants' behaviors toward parents at reunion.

Highly stable differences in security of attachment have been found during the first year and a half of life (Ainsworth et al., 1978). Infants who had secure attachments were described as showing some distress when separated from the caregiver, being easily comforted upon return and interacting positively with the caregiver. Several kinds of insecure attachment styles were delineated, whereby infants displayed other problems upon reunion with the caregiver: 1) exhibiting difficulty in being comforted by caregivers (insecure-ambivalent), 2) avoiding the caregiver (insecure-avoidant) (Ainsworth et al., 1978), or 3) appearing dazed or disoriented (Main, Kaplan, & Cassidy, 1985).

Main (1985) extended Bowlby's model by describing an internal working model as "a set of conscious and unconscious

rules for organization of information relevant to attachment and for obtaining or limiting access to that information." Differences in organization of attachment and behaviors are conceptualized as "individual differences in mental representation of self in relation to attachments." The working model of relationship to attachment figure reflects not just an objective picture of the "parents" but rather the past experiences of the caregiver's response to the infant's action toward the attachment figure.

Blatt and Homann (1992) note that two subtypes of depression can be distinguished from the various models of depression: anaclitic and introjective depression. Anaclitic or dependent depression "is characterized by feelings of loneliness, helplessness and weakness and the individual intensely and chronically fears being abandoned and left unprotected and uncared for." Introjective depression is marked by self-criticism, guilt and feelings of unworthiness. These individuals have a chronic fear of losing acceptance and love of significant others. Blatt and Homann (1992) conclude that an anxious or ambivalent insecure attachment may lead to a depression that focuses on issues of dependency, loss or abandonment. However, an avoidant insecure attachment may be associated with a depression that revolves around issues of self-worth and self-criticism, with angry feelings directed towards self and the care-giver.

What is important to note about Blatt and Homann's review is their attempt to examine etiological factors of depression by assessing the quality of the caregiving experience as related to different types of depression. The next group of studies examine the relationship of attachment and depression using more linear methods of attachment and depression.

#### Current Parent-Adolescent Attachment Relationships and Depression

Papini, Roggman and Anderson (1991) examined how parent adolescent attachment was related to family functioning and depression and tested two hypotheses regarding adolescents' attachment. Results supported the emotional buffering hypothesis which suggests that the parent-adolescent attachment relationship buffers the adolescent from depression. The emotional distancing hypothesis was also supported: adolescents' attachment to their parents decrease as the adolescents increase in pubertal maturity. The Inventory of Parent and Peer Attachment was used to measure the adolescents' attachment to parents and peers as the extent to which parents and peers provide the adolescent with a sense of psychological security. Psychological security was assessed as the degree of mutual trust and quality of communication with mothers and fathers minus the prevalence of alienation.

One criticism of using this kind of measure for attachment is its assumption that several different aspects of

a relationship (trust, communication, and alienation) contribute equally to the attachment variable. Using a composite measure of attachment reduces the clarity of understanding how each of these aspects is associated with symptomatology. A more limited definition of attachment, measuring one aspect of the parent-child relationship, such as emotional closeness, may be more advantageous in describing how a family factor is related to depression.

### Qualities of Family Functioning as Related to Depression

#### Attachment

Several factors regarding the quality of the family atmosphere such as, support, closeness, cohesion, and affective involvement have been found to be related to depression in adolescents.

These dimensions are used to characterize families along a continuum. Research regarding each of these qualities is reviewed below.

In a study (Feldman, Rubenstein, & Rubin, 1988) investigating the extent of family process variables associated with depressive affect in early adolescents, cohesion was found to be the most powerful process variable related to depression as measured by The Children's Depression Inventory (Kovacs & Beck, 1977). Cohesion was defined according to the Family Adaptability and Cohesion Evaluation Scale (FACES) (Olson, Portner & Lavee, 1985) as a "positive



emotional bonding and mutual social and emotional support among family members" and assessed by the Family Assessment Device (Epstein, Bishop & Levin, 1983).

A second study examined the role of perceived family environment in the life stress adjustment of young adolescents (Burt, Cohen & Bjorck, 1988). Depression was measured by The Childhood Depression Inventory and cohesion, from the Moos and Moos Family Environment Scale (1981), was defined as the extent to which family members are committed and concerned to the family. Results indicated that greater cohesion was related to lower depression.

Another study using a different type of population and a different method of obtaining the data yielded similar results. This study investigated the social environment and psychosocial functioning of three groups of prepubertal children: 1) children with major depression, 2) children with non-depressed emotional disorders, and 3) normal children (Puig-Antich, Lukens, Davies, Goets, Brennan-Quattrocks, Todak, 1985). Participation in this study was contingent upon fulfilling Research Diagnostic Criteria for major depressive disorder. Lack of cohesion in the family environment of depressed adolescents seems to be the primary factor correlated with adolescent depression.

In an epidemiological study of the depressive mood of adolescents, the association between parental closeness and adolescents' self-reported depressive mood was examined using

a representative sample of public high school students. Closeness, was determined by the following: depending on the parent for advice, feeling close to the parent, willing to be like the parent, getting praise from the parent, and frequency of talking to the parent about personal problems. It was found that the weaker the degree of closeness to parents, the higher the depressive mood (Kandel & Davies, 1982).

Affective involvement, a dimension used in the McMaster Model of Family Functioning (Epstein, Bishop & Levin, 1983) is the amount of interest and concern family members have for one another. In a study of family functioning over the course of major depression, affective involvement was found to be significantly lower in the family atmosphere of depressed persons compared with that of nondepressed persons (Keitner, Miller, Epstein, Bishop & Fruzzetti, 1987). Findings from another study showed that affective involvement was the lowest in the family atmosphere of individuals with depression compared with individuals of other psychiatric groups, such as schizophrenia and bipolar disorder (Miller, Kabacoff, Keitner, Epstein & Bishop, 1986).

Three (Feldman et al., 1988; Burt et al., 1988; Kandel & Davies, 1982) of the six studies reviewed used subjects with self-reported depression. These were measured using The Children's Depression Inventory and the Hamilton Rating Scale for Depression. The other studies ( Puig-Antich et al, 1985, and Keitner et al., 1987, Miller et al., 1986) used subjects

that were classified with major depression according to the Diagnostic Statistical Manual-III or Research Diagnostic Criteria. Comparison of the results of studies using two different populations --those with diagnosed major depression disorder and those with depressive symptoms -- do not reveal any major discrepancies. In fact, the findings seem to be consistent.

While these studies provide valuable information regarding the quality of the environment of a family with a depressed person, these findings should be considered in light of a few methodological limitations. The primary method of research on family factors of depression seems to be via questionnaires. A major disadvantage in using questionnaires is that the questionnaires may not necessarily tap into what is most important to the adolescent regarding their family environment. A semi-structured interview may give more flexibility in allowing the adolescent to bring up topics important to him or her instead of being investigator-generated.

Research that examines the family environment does not typically conduct separate assessments for the adolescents' relationships to their mothers and to their fathers. The studies that did use separate analyses for the child's relationship to mother and the child's relationship to father used only a few dimensions such as closeness (Kandel & Davies, 1982) or warmth and depth of communication (Puig-Antich et

al., 1984). Data regarding the father-child relationships were generally reported by the mother.

Additionally, research has typically utilized concurrent assessments of family functioning and child depression. Of the studies reviewed, only two groups of researchers (Burt et al., 1988 and Keitner et al., 1987) have included a longitudinal component in their study. The follow-up time period for these studies have been a 5 month interval and a 12 month interval after the initial data collection. Longitudinal analyses provide greater understanding of the kinds of family functioning that are associated with depression and how these change over time.

#### Communication

Communication within the family has also been shown to be related to adolescent depression. Expressiveness, from the Moos and Moos Family Environment Scale (1981), involves the extent to which the family can openly express their feelings. Results from a study examining the effect of the adolescent's perceived family environment on adolescent functioning indicated that low amounts of expressiveness in the adolescent's perceived family environment was found to be associated with depression (Burt et al., 1988).

#### Conflict

Conflict, according to the Moos and Moos Family Environment Scale (1981), refers to the extent to which open



expressions of anger and general conflictual interactions are characteristic of the family. In a study that assessed the perceived family atmosphere of adolescents, families that were perceived as conflict-ridden had higher rates of adolescent depression (Burt et al, 1988). Similar results were obtained from a study examining the relation of the social environment of prepubertal children to depression. Parents of children with major depression were found to have significantly more disagreements over child-rearing methods than parents of nondepressed children (Puig-Antich et al., 1985).

### Summary

In summary, findings concerning the functioning of a family with a depressed adolescent included the following: lack of closeness between parents and children (Kandel & Davies, 1982; Puig Antich et al., 1985), lack of cohesion (Feldman et al., 1988; Burt et al., 1988), low affective involvement (Keitner et al., 1987), greater difficulty in communication (Keitner et al., 1987), low expression (Burt et al., 1988) and high conflict (Burt et al., 1988).

### Gender Differences in Depression

Research on depression has evidenced a greater prevalence of depression among women (Boyd & Weissman, 1986). This gender difference has been shown to start in middle adolescence (Kandel & Davies, 1982). Petersen, Sarigiani, and Kennedy (1991) investigated why more girls have depression. They examined girls and boys between the 6th and 12th grades,

and results indicated that girls were at greater risk for development of depression by the 12th grade because they experienced more challenges in early adolescence than did boys.

Petersen, Sarigiani and Kennedy (1991) created a developmental model for adolescent mental health that includes several factors contributing to the adolescents' well being: the timing and nature of stressful life events and normative developmental changes, peer and parent support, and coping responses. Family relationships were measured in terms of closeness to each parent using The Father and Mother Closeness Scales (Blyth, Hill & Thiel, 1982). Results indicated that closeness to mother and especially to father buffered the effects of early adolescent changes as shown in the Emotional Tone scale, which provides an index of negative as well as positive feelings of well-being and taps into the dimension of depression (Petersen, Schulenberg, Abramowitz, Offer & Jarcho (1984). Gender differences in depressed affect disappeared at 12th grade once the early adolescent changes were taken into account.

Although parent-adolescent closeness has been found to be an important factor in buffering the adolescent from depression, it would be useful to describe other family relationship factors, such as communication and conflict in terms of gender differences in predicting depression. A primary aim of the present study was to provide a fuller

description of the family processes occurring in middle adolescence and their relation to adolescent depression. The aims of the study are described in the following section.

### Research Outline

Subjects for this thesis were a subsample taken from a larger data-set of the Adolescent and Family Development Project of Harvard Medical School (1978 -1982). Original data was obtained from psychiatric and non-psychiatric adolescents and their parents over a period of 4 years. For this thesis, only subjects who completed the Achenbach Youth Self-Report in the fourth year of the study and the Adolescent Clinical-research Interview in their freshman and junior years were included. (A more complete description of the sample is described in the Methods section.)

The present study tested four types of questions. First, preliminary analyses were conducted to reveal hospitalization and gender differences in symptomatology and family relationship variables. Second, the emotional buffering hypothesis was tested by examining whether attachment is inversely related to depression as well as whether attachment buffers other kinds of symptomatology. Factors including gender of parent, gender of adolescent, and hospitalization status were then included to examine whether they predicted symptomatology beyond the ability of attachment to predict depression for high school freshman and for high school

juniors. Third, the association of family communication and conflict to depressive symptomatology was also examined. Finally, as a minor focus, the emotional distancing hypothesis was tested to determine whether attachment decreases over time.



## CHAPTER 2

### METHOD

#### Sample

The data for this study was originally collected as part of the Adolescent and Family Development Project of Harvard Medical School (1978 - 1982). The original data was collected from a sample of 194 adolescents and their parents over 4 consecutive years, a period generally corresponding to the adolescents' 9th thru 12th grade high school years. Adolescent psychiatric patients were drawn from successive admissions to the children's unit of a private psychiatric hospital. Patients diagnosed as having thought disorder or organic brain damage were excluded from the sample. The non-patient adolescents were drawn from freshman volunteers attending a suburban public high school. The mean age of all adolescents in the first year of the study was 14 and a half years.

Subjects (n=61; psychiatric patients, n=29; non-patients, n=32) for this thesis included those adolescents who had completed the Achenbach Child Behavioral Checklist in the fourth year of the study and the Adolescent Clinical-research Interview in years 1 or 3. Adolescents in this sample were predominantly European-American and middle to upper-middle class.

## Measures

### Family Relationship Scale

The Family Relationship Variables were derived from interviews conducted with the adolescents during each year of the study. These interviews lasted one hour and were conducted by experienced clinicians (psychiatrists, psychologists, and social workers) trained in the use of the Adolescent Clinical-research Interview. The purpose of the interview was to elicit the adolescent's modes of thinking and responding to events and relationships in five major areas of his or her life: 1) school courses and relationships with teachers; 2) family relationships; 3) relationships with friends and peers (same sex and opposite sex); 4) extracurricular activities (e.g. sports, jobs, drug use); and 5) views of his or her future. The interview deals with the adolescent's predominate affective states, range of feelings experienced, general conflict management, and handling of specific stressful situations in each area.

Twenty-two family relationship variables were coded from the annual Adolescent Clinical-research Interview. These family relationship variables were based upon other empirical studies that operationalized parent control attempts, support and family relationships, including Hoffman and Saltzstein's (1967) study of delinquency, and the University of California, Berkeley, follow-up of Oakland Growth Study subjects.

The following family relationship variables were used in this study: degree of conflict and tension, family cohesiveness, affective involvement, parental support and communication. All variables were coded ordinally on a 3-point, 4-point, or 5-point Likert scale.

Interrater reliability for three raters for these codes was high. Intraclass correlations ranged from good (.64) to excellent (.96).

#### Measure of Attachment

To address the emotional buffering and emotional distancing hypotheses, a variable measuring attachment between parent and child was formed by grouping together several of the family relationship variables.

A variable of attachment was formulated based on a weighted average of four family relationship variables already existing in the data set: cohesion, love, support and affectionate involvement. Cohesion refers to the extent to which the adolescent describes the family as a whole in terms of having strong emotional ties among each member, having loyalty to each other, sharing interests, being concerned about each other's activities and welfare, supporting and trying to help each other. Love is the extent to which the adolescent perceives the parent to be responsive and accessible to adolescent's needs. Support is the degree to which the adolescent views the parents' agreeing with the adolescent's activities and the parent's understanding of the

adolescent as an individual. Affectionate involvement is the degree of the parents' interest in the adolescent's activities and the degree to which the adolescent enjoys spending leisure time with the family. Support for the basis of this composite variable was shown by the pattern of Pearson correlations between the individual variables that compose the attachment variable (See Tables 4-7).

#### Achenbach Youth Self Report

The Achenbach Youth Self Report (YSR), a supplement to the Child Behavior Check List (CBCL) was used to assess adolescents' behavior problems (Achenbach & Edelbrock, 1983). The YSR consists of 118 behavior problem items, such as, "Cruel to animals", "Complains of loneliness", and "Refuses to talk". The adolescent rated (on a scale of 0-2) the extent to which certain behaviors were present in his or her life at that time or within the past 12 months. If a behavior was very true at the present time or within the last six months, the adolescent would score 2. If the item was only somewhat true or sometimes true, a score of 1 would be given. 0 would be scored if the behavior was not true of him or her. The YSR is designed to be filled out by people with at least a fifth grade reading level. The adolescents' self-ratings of YSR behavior problem items show high enough stability and correlation with other people's views to inspire confidence in their meaningfulness (Achenbach & Edelbrock, 1983). A study of behavior problems of adolescents, aged 12 - 17 years, who



completed the CBCL at a community mental health center at intake and at 6 month follow-up indicated stability in the self-ratings of the behavioral symptoms. The Pearson correlation between the total behavior problem scores across the 6-month interval was .69. Moreover, total behavior problem scores obtained from the youths' self-ratings on the YSR were significantly correlated (ranging from .37 to .70) with mothers' and clinicians' ratings of the adolescents at intake and at 6-month follow-up.

The Child Behavior Profile (CBP), derived from the CBCL or the YSR, scores the behavioral items into various problem behavior scales. Seven reliable behavioral scales were obtained: somatic complaints, depressed, unpopular, thought disorder, aggressive, delinquent and self-destructive (boys only). These seven behavioral scales are also known as "narrow-band" scales.

Additionally, second order factor analyses have been conducted and have resulted in two broad-band groupings of general categories of behaviors under which the narrow-band groupings fall: 1) internalizing, reflecting fearful, inhibited, overcontrolled behavior and 2) externalizing, characterized by aggressive, antisocial, undercontrolled behavior. While the internalizing and the externalizing groupings reflect contrasting types of behavior problems, they are not mutually exclusive. In fact, they are positively correlated. There appears to be a general dimension among

behavior problems, similar to the general (g) among ability tests. That is, people who score high in one area tend to score high in others. Likewise, those individuals who score low in one area tend to score low in other areas.

Despite the positive relationship between internalizing and externalizing, there are children whose behavior problems can be primarily characterized as "internalizing" or "externalizing". The relationship between the two broad band groupings is similar to the relationship between the Verbal and Performance IQ scores of the Wechsler Intelligence tests. While individuals may be found to have positive associations between their Verbal and Performance IQ scores, some may score significantly higher in one or the other area.

These Child Behavior Profiles are different from other systems of classifying behavior problems in several ways. For example, the traditional Diagnostic Statistical Manual III Revised (DSM III-R) assesses either the presence or absence of a disorder, leaving no room for quantitative or qualitative variations. The CBP allows for the degree to which adolescents exhibit behavioral problems. The advantage of the latter approach is that it preserves a more complete picture of the adolescent's behavior behavior than do categorical diagnoses.

## CHAPTER 3

### RESULTS

Preliminary analyses using unpaired t-tests were conducted to assess hospitalization and gender differences in terms of family relationship variables and symptomatology.

The emotional buffering hypothesis was tested using multiple regression analyses in order to examine how attachment was associated with depressive symptomatology and with other kinds of symptomatology.

To test the emotional distancing hypothesis, changes in attachment from year 1 to 3 were assessed by conducting paired t-tests for each hospitalization group.

#### Hospitalization and Gender differences in Symptomology and Family Relationship Variables

Analyses of differences between the non-hospitalized group (n=32) and the hospitalized group (n=29) in symptomatology and family relationship variables were conducted using unpaired t-tests. Results indicate that the hospitalized group had significantly more delinquent [ $t(34)=-2.239; p<.05$ ] and externalizing symptoms [ $t(59)=-2.672; p<.01$ ]. Significant site differences on all the family relationship variables were found. As shown in Table 1, levels of attachment and communication with mother and with father in years 1 and 3 were significantly higher in the non-hospitalized group than in the hospitalized group.

Level of conflict at years 1 and 3 was significantly lower in the non-hospitalized group.

Gender differences in symptomatology and family relationship variables were examined using independent t-tests. Scale 7 (Self-destructive symptoms) was not examined for gender differences because it was scored for boys only. Significant gender differences were found on all the scales except for Scale 3 (unpopular symptomatology). Levels of somatic complaints [ $t(59)=-4.208;p<.001$ ] and delinquency [ $t(59)=-3.162;p<.005$ ] were significantly higher for boys, while levels of depressive [ $t(59)=2.924;p<.005$ ], thought disordered [ $t(59)=3.256;p<.01$ ], and aggressive [ $t(59)=3.415;p<.001$ ] symptomatology were significantly higher for girls. Analyses of gender differences in family relationship variables were not conducted because of missing data on some family variables resulting in small sample size.

#### Emotional Buffering Hypotheses

The emotional buffering hypothesis states that higher attachment is associated with lower symptomatology. To test the emotional buffering hypothesis, hierarchical multiple regression analyses were conducted to examine the association between attachment and symptomatology. The attachment variable at year 1 and year 3, hospitalization status and gender were the predictor variables and symptomatology was the criterion variable. First, the main effects of site, gender and the



family relationship variable (FRV) were entered. Next, joint effects of site x gender, gender x FRV, or site x FRV were entered one at a time so that eventually all the main and joint effects were entered into one equation. Joint effects were entered one at a time to determine each effect contributed to the equation above the other effects. Subsequently, with the variables that indicated significant joint effects, one-variable regression analyses were done to clarify the relationships of the effects. Results indicated that there were no significant effects between mother or father attachment and depressive symptomatology. However, significant associations were found between attachment and other kinds of symptomatology.

Attachment was predictive of delinquency. Attachment to mothers in year 1 was significantly related to delinquency differently for sons and daughters [ $\beta = -22.903$ ,  $t(44) = -2.201$ ,  $p = .03$ ]. Through one-variable regressions, it was found that while attachment to mothers in year 1 was not related to delinquency for sons, daughters' attachment to mothers in year 1 was significantly inversely related to delinquency [ $\beta = -6.094$ ,  $t(31) = -2.137$ ,  $p = .04$ ]. A trend was found that fathers' attachment was also related to delinquency differently for sons and daughters [ $\beta = -19.558$ ,  $t(44) = -1.892$ ,  $p = .06$ ]. Subsequent one variable regression analyses revealed a weak negative association of daughters' attachment to fathers at year 1 to delinquency [ $\beta = -4.781$ ,  $t(30) = -1.434$ ,  $p = .16$ ].

Boys' attachment to fathers at year 1 was not related to delinquency.

A trend existed for attachment to fathers in year 3 to be associated with aggressive symptoms differently for sons and daughters [ $\beta = -11.953$ ,  $t(42) = -1.688$ ,  $p = .09$ ]. One variable regression analyses indicated that there was a trend for daughters' attachment to fathers in year 3 to be inversely correlated with aggressive symptoms [ $\beta = -6.683$ ,  $t(28) = -1.891$ ,  $p = .06$ ]. Sons' attachment to fathers in year 3 was not associated with aggressive symptoms.

### Family Functioning Patterns

Some trends were noted for other family relationship variables to predict depressive symptomatology. First, in year 1, there was a joint effect of communication with mother and hospitalization above and beyond the main effects of communication and hospitalization [ $\beta = 60.247$ ,  $t(22) = 1.750$ ,  $p = .09$ ]. In the hospitalized group, there was a trend for communication with mothers at year 1 to be associated with depressive symptomatology [ $\beta = 57.805$ ,  $t(8) = 1.814$ ,  $p = .10$ ]. In the non-hospitalized group, communication with mother at year 1 was not significantly associated with depressive symptomatology. Second, there was a joint effect of communication with father and hospitalization above and beyond the main effects of communication and hospitalization

[ $\beta=122.976$ ,  $t(18)=1.686$ ,  $p=.10$ ]. Subsequent one variable regression analyses revealed a non-significant, but a differential pattern of how communication with father was related to depressive symptoms for each site. For the hospitalized group, communication with father in year 1 was positively associated with depressive symptomatology. For the non-hospitalized group, communication with father was inversely associated with depressive symptomatology.

Results indicated that conflict was not predictive of depressive symptomatology.

#### Emotional Distancing Hypotheses

To test the emotional distancing hypothesis, changes in attachment from year 1 to 3 were assessed by conducting paired t-tests at each site. Results indicated no significant differences over time.

Subsequent analyses were done to examine how psychiatric status and gender of parent predict attachment for freshmen and for juniors. Paired t-tests indicated that non-hospitalized adolescents' attachment to mothers were significantly greater than to fathers at year 1 [ $t(28)=2.584$ ,  $p<.015$ ]. However, at year 3, it was the hospitalized adolescents who had significantly greater attachment to mothers than to fathers [ $t(20)=2.067$ ,  $p<.05$ ].

## CHAPTER 4

### DISCUSSION

The first question this study addressed was whether there were hospitalization and gender differences in terms of symptomatology and family relationship variables. Hospitalization differences were found for types of symptomatology. The hospitalized group had greater prevalence of delinquent and externalizing symptoms. Site differences were also found in terms of family relationship variables. The hospitalized group exhibited significantly lower levels of attachment and communication and higher levels of conflict. These findings are consistent with previous research findings on distinguishing family functioning qualities of psychiatric vs. non-psychiatric families (Kandel & Davies, 1982; Puig Antich et al., 1985; Feldman et al., 1988; Burt et al., 1988; Keitner et al., 1987).

Gender differences existed in symptomatology. Boys had greater levels of somatic complaints and delinquency, while girls had more depressive, thought disordered and aggressive symptoms. Some of these findings are consistent with previous research. Boys have been found to have more delinquent symptoms (Johnson, 1987) and girls have been found to have more depression (Kandel & Davies, 1982; Peterson, Sargiani, & Kennedy, 1991). These findings of greater aggressive symptoms in girls do not appear to be in line with previous research. Research has indicated that boys have more aggressive symptoms



than girls, however, factor analysis of the self-reported aggressive characteristics of college undergraduate males have suggested that men have a greater degree of direct, physical aggression while women have a greater degree of indirect, verbal aggression (Gladue, 1991). A closer examination of the kinds of aggressive behaviors endorsed by the adolescents in this sample may show this kind of gender pattern.

The major aim of this study was to determine whether the family relationship variable of attachment buffered the adolescent from depressive symptomatology or other kinds of symptomatology. Results indicated no significant findings concerning attachment and depression. It is possible that no significant results were obtained because of a small sample size. It is also possible that the range of depression may have been so narrow so that no pattern of attachment varying with depression was indicated.

Results partially supported the buffering hypothesis with regard to attachment and other symptomatology, such as aggressive and delinquent behaviors. A trend existed for daughters' attachment to fathers in year 3 to be inversely correlated with aggressive symptoms. Sons' attachment to fathers in year 3 was not associated aggressive symptoms.

Attachment was predictive of delinquency. For girls, attachment to mothers in the freshman year was significantly inversely related to delinquency. This result is consistent with the model of daughters' attachment with their mothers

providing a buffer from delinquent symptoms. This was not true of sons' attachment to mothers. No relationship was found for sons' attachment to mothers and delinquent behaviors. A similar pattern of the adolescent gender variation in attachment to fathers in relation to delinquent symptoms was shown. While girls' attachment to fathers in the freshman year was inversely associated with delinquency, boys' attachment to fathers at year 1 was not related to delinquency.

This seems to suggest that family relationship variables buffer delinquent symptoms differently for girls than for boys. This finding supports one line of thought in research on delinquent behaviors that maintains that gender differences exist in factors inhibiting delinquency. That is, while indirect controls, such as attachment to parents, are a more important inhibitor of delinquency for girls than for boys, direct controls, such as punishment and discipline are more important in deterring boys from committing delinquent acts (Nye, 1967).

A trend was found for communication with mothers to predict depression. While communication with mothers was not significantly related to depression in the non-hospitalized group, communication with mothers was associated with depression in the hospitalized group.

A similar pattern was found for communication with father at year 1. These findings do not unequivocally indicate that

more communication is associated with healthier family functioning as previous research has suggested (Keitner et al., 1987; Burt et al., 1988). Communication in the psychiatric group seems to be associated with greater depression. This relationship may be due to the fact that the variable of communication in the present study assessed primarily the amount and frequency of the communication, not the quality of the communication. Perhaps the quality of the communication was unhealthy and in some way associated with depression. For example, a greater degree or frequency in openness in families of depressed adolescents may not necessarily foster nurturant kinds of interactions. Instead there may be increased possibilities for more exchanges characterized by criticalness, hopelessness and negativity. This result may bear some resemblance to the work on expressed emotion in schizophrenic families, in which critical interactions with family members exacerbated the schizophrenic's state of health (Glynn, Randolph, Eth & Paz, 1990)

The emotional distancing hypothesis was not supported. Results indicated no significant differences over time. It is possible that adolescents do not necessarily show a decrease in attachment over time but that the quality of attachment changes over time. Other perspectives on parent-adolescent relationships maintain that parents and adolescents have enduring bonds which undergo significant transformation (Hill

& Steinberg, 1976) or that adolescents develop individuality while maintaining closeness to parents (Grotevant & Cooper, 1986).

Non-hospitalized adolescents' attachment to mothers were significantly greater than to fathers at year 1. However, at year 3, it was the hospitalized adolescents who had significantly greater attachment to mothers than to fathers. This finding fits well with attachment theory which views attachment behavior as a response to stress. Hospitalization is disruptive to the lives of adolescents and to their relationships with their parents. It is very likely that adolescents hospitalized at the first year of the study may have had impaired attachment and later exhibited more attachment at year 3 to compensate for the disruption in their relationship with their mothers.

In conclusion, the emotional buffering hypothesis of attachment from depression was not supported. Attachment was not found to be a predictor of depression in this study. The lack of significant findings may be attributed to a small sample size or to a narrow range of depression scores. However, attachment seems to have been a useful variable in predicting delinquent behaviors in girls and boys. Family processes of communication and conflict did not provide any further clarification in terms of understanding gender differences in the prevalence of depression. It should be noted that the communication factor played a more important



role in predicting depression in families that were grouped on the basis of adolescents' hospitalization. Future avenues of research on communication may need to assess not only the frequency of the communication, but the quality of the communication.

The emotional distancing hypothesis was not supported and may suggest that adolescents' relationships with parents do not necessarily involve an increased distance in the parent-adolescent tie, but perhaps may undergo a change in the quality of the relationship that may be predominantly characterized by connectedness.

Table 1

## Group Means for Family Relationship Variables

	Non-patient (n=32) Mean (SD)	Patient (n=29) Mean (SD)	t
<hr/>			
Year 1			
Family Relations			
<u>Mother</u>			
Attachment	.803 (.163)	.372 (.169)	9.130 ***
Conflict	.912 (.173)	.437 (.196)	8.82 ***
Communication	.694 (.256)	.260 (.135)	4.944 ***
<u>Father</u>			
Attachment	.710 (.192)	.359 (.13)	7.263***
Conflict	.872 (.252)	.509 (.307)	4.103 ***
Communication	.529 (.216)	.222 (.067)	4.094 **
Year 3			
Family Relations			
<u>Mother</u>			
Attachment	.749 (.185)	.496 (.184)	4.966 ***
Conflict	.894 (.157)	.698 (.316)	2.740 **
Communication	.750 (.186)	.422 (.205)	4.864 ***
<u>Father</u>			
Attachment	.683 (.208)	.413 (.178)	4.809 ***
Conflict	.913 (.180)	.599 (.289)	4.140 ***
Communication	.646 (.218)	.309 (.187)	4.075 ***
<hr/>			
Independent t-tests (two-tailed); ***p<.001; **p<.01; *p<.05			

Table 2  
Means for Behavioral Symptomatology  
in Patient and Non-patient groups

Narrow Band	Non-patient	Patient (n=32) Mean (SD)	T (P value) (n=29) Mean (SD)
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Scales

Somatic Complaints	.969 (5.515)	8.690 (7.746)	-1.007
Depression	11.719 (11.017)	13.207 (10.352)	-.542
Unpopular	2.906 (3.430)	2.966 (2.009)	-.083
Thought Disorder	3.781 (3.200)	4.793 (4.109)	-1.078
Aggressive	5.750 (4.429)	7.759 (5.636)	-1.555
Delinquent	5.000 (5.424)	9.172 (6.751)	-2.672 **
Self-Destructive (Boys only, n=25)	8.857 (7.080)	12.455 (5.646)	-1.413

Independent t-tests (two-tailed) \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$

	Non-patient (n=18)	Patient (n=18)	T (P value)
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Broad Band

Externalizing	9.556 (4.914)	15.278 (9.664)	-2.239 *
Internalizing	20.389 (12.263)	20.556 (14.626)	-.037

Independent t-tests (two-tailed) \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$

Table 3  
Correlations of Mother Cohesion,  
Affective Involvement, Support and Love in Year 1

Attachment to mother in year 1				
	Macohes1	Maaff1	Masuppl	Malove1
Macohes1	1.000			
Maaff1	.947***	1.000		
Masuppl	.820**	.836**	1.000	
Malove1	.945***	.940***	.824**	1.000

Significance level: \*\*\*  $p < .001$  , \*\*  $p < .01$  , \*  $p < .05$   
n=13



Table 4  
Correlations of Mother Cohesion,  
Affective Involvement, Support and Love in Year 3

	Macohes3	Maff3	Masupp3	Malove3
Macohes3	1.000			
Maff3	.561*	1.000		
Masupp3	.747**	.593*	1.000	
Malove3	.906***	.608*	.773***	1.000

Significance level: \*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$   
n=14

Table 5  
Correlations of Father Cohesion,  
Affective Involvement, Support and Love in Year 1

	Facohes1	Faaff1	Fasuppl	Falovel
Facohes1	1.000			
Faaff1	.878	1.000		
Fasuppl	.844	.806	1.000	
Falovel	.882	.905*	.837	1.000

Significance level: \*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$   
n=7

Table 6  
Correlations of Father Cohesion,  
Affective Involvement, Support and Love in Year 3

	Facohes3	Faaff3	Fasupp3	Falove3
Facohes3	1.000			
Faaff3	.452	1.000		
Fasupp3	.834**	.816*	1.000	
Falove3	.888**	.706	.918***	1.000
Significance level: *** p<.001 ** p<.01 * p<.05				
n=7				

## APPENDIX

### CODING FOR PARENT-CHILD RELATIONSHIP VARIABLES

- A. Degree of Conflict and Tension
  - 1. Between adolescent and mother
    - (0) Insufficient information to code
    - (1) Considerable and marked tension, conflict
    - (2) Moderate tension, conflict and disagreement
    - (3) Little, if any, tension, conflict and disagreement
  - 2. Between adolescent and father
    - (0) Insufficient information to code
    - (1) Considerable and marked tension, conflict
    - (2) Moderate tension, conflict and disagreement
    - (3) Little, if any, tension, conflict and disagreement
- B. Cohesiveness
  - 1. Adolescent describes relationship with mother as:
    - (0) Insufficient information to code
    - (1) Very distant
    - (2) Moderately distant
    - (3) Moderately close
    - (4) Very close
  - 2. Adolescent describes relationship with father as:
    - (0) Insufficient information to code
    - (1) Very distant
    - (2) Moderately distant
    - (3) Moderately close
    - (4) Very close
- C. Affectionate Involvement
  - 1. Adolescent describes mother as:
    - (0) Insufficient information to code
    - (1) Uninvolved and uninterested in adolescent's activities
    - (2) somewhat involved and interested in adolescent's activities
    - (3) Actively involved and interested in adolescent's activities
  - 2. Adolescent describes father as:
    - (0) Insufficient information to code
    - (1) Uninvolved and uninterested in adolescent's activities



- (2) somewhat involved and interested in adolescent's activities
  - (3) Actively involved and interested in adolescent's activities
3. Adolescent enjoys spending leisure time with mother  
(Does not enjoy spending leisure time with mother).
- (0) Insufficient information to code
  - (1) Adolescent reports that s/he does not enjoy mother's company and prefers to avoid mother except when pressured or forced, preferring to spend all leisure time in outside activities
  - (2) Adolescent reports that s/he does not always enjoy mother's company and prefers to spend most leisure time away from mother in outside interests
  - (3) Adolescent reports that s/he enjoys mother's company but prefers to spend some leisure time with mother and some in outside activities
  - (4) Adolescent reports that s/he enjoys mother's company and prefers to spend most leisure time with mother
  - (5) Adolescent reports that s/he enjoys mother's company and prefers to spend almost all leisure time with mother rather than in outside interests
4. Adolescent enjoys spending leisure time with father  
(Does not enjoy spending leisure time with father).
- (0) Insufficient information to code
  - (1) Adolescent reports that s/he does not enjoy father's company and prefers to avoid mother except when pressured or forced, preferring to spend all leisure time in outside activities
  - (2) Adolescent reports that s/he does not always enjoy father's company and prefers to spend most leisure time away from mother in outside interests
  - (3) Adolescent reports that s/he enjoys father's company but prefers to spend some leisure time with mother and some in outside activities
  - (4) Adolescent reports that s/he enjoys father's company and prefers to spend most leisure time with mother
  - (5) Adolescent reports that s/he enjoys father's company and prefers to spend almost all leisure time with father rather than in outside interests
5. Adolescent spends leisure time with mother (Does not spend leisure time with mother).
- (0) Insufficient information to code

- (1) Adolescent reports that s/he does avoids mother except when pressured or forced, spending all leisure time in outside activites
  - (2) Adolescent reports that s/he spend most leisure time away from mother in outside interests
  - (3) Adolescent reports that s/he spends some leisure time with mother and some in outside activities
  - (4) Adolescent reports that s/he spends most leisure time with mother
  - (5) Adolescent reports that s/he spends almost all leisure time with mother rather than in outside interests
6. Adolescent spends leisure time with father (Does not spend leisure time with father).
- (0) Insufficient information to code
  - (1) Adolescent reports that s/he does avoids father except when pressured or forced, spending all leisure time in outside activites
  - (2) Adolescent reports that s/he spend most leisure time away from father in outside interests
  - (3) Adolescent reports that s/he spends some leisure time with father and some in outside activities
  - (4) Adolescent reports that s/he spends most leisure time with father
  - (5) Adolescent reports that s/he spends almost all leisure time with father rather than in outside interests

#### D. Parent's Support

##### 1. Adolescent's view of mother's support of adolescent

- (0) Insufficient information to code
- (1) Opposes most things adolescent wants to do
- (2) Disagrees about what adolescent wants to do, tells him/her, but does not actively oppose or help adolescent
- (3) Has some reservation about what adolescent wants to do, but helps some here and there
- (4) Is supportive of most things adolescent wants to do

##### 2. Adolescent's view of father's support of adolescent

- (0) Insufficient information to code
- (1) Opposes most things adolescent wants to do
- (2) Disagrees about what adolescent wants to do, tells him/her, but does not actively oppose or help adolescent
- (3) Has some reservation about what adolescent wants to do

- do, but helps some here and there
- (4) Is supportive of most things adolescent wants to do

3. Mother's understanding

Adolescent's view of mother's understanding of adolescent as an individual

- (0) Insufficient information to code
- (1) Does not understand adolescent at all; "Can't make any sense of why I act the way I do."
- (2) Mother at a loss to understand many aspects of adolescent (3) Mother listens to him/her and tries to understand (4) Mother understands him/her as a separate individual with his/her own viewpoint

4. Father's understanding

Adolescent's view of mother's understanding of adolescent as an individual

- (0) Insufficient information to code
- (1) Does not understand adolescent at all; "Can't make any sense of why I act the way I do."
- (2) Father at a loss to understand many aspects of adolescent
- (3) Father listens to him/her and tries to understand
- (4) Father understands him/her as a separate individual with his/her own viewpoint

E. Love

1. Mother as loving, supportive vs. rejecting, neglecting

- (0) Insufficient information to code
- (1) Adolescent reports that mother is neglectful of adolescent's needs, mother's needs generally take precedence when there is a conflict. Adolescent is treated coolly, harshly and unsympathetically. Mother is frequently inaccessible
- (2) Adolescent reports that mother does not always pay adequate attention to adolescent's needs, mother's needs take precedence and mother is frequently cool or perfunctory
- (3) Adolescent reports that mother is adequately attentive to adolescent's needs, is accessible and not neglecting, but is not always involved and responsive
- (4) Adolescent reports that mother is very attentive to adolescent's needs, is warm, accessible and supportive. Mother has other interests besides childrearing



- (5) Adolescent reports that mother is unusually aware and responsive to adolescent's needs, is loving, supportive and accessible. Adolescent's needs generally take precedence to mother's

## 2. Father as loving, supportive vs. rejecting, neglecting

- (0) Insufficient information to code
- (1) Adolescent reports that father is neglectful of adolescent's needs, father's needs generally take precedence when there is a conflict. Adolescent is treated coolly, harshly and unsympathetically. Father is frequently inaccessible
- (2) Adolescent reports that father does not always pay adequate attention to adolescent's needs, father's needs take precedence and father is frequently cool or perfunctory
- (3) Adolescent reports that father is adequately attentive to adolescent's needs, is accessible and not neglecting, but is not always involved and responsive
- (4) Adolescent reports that father is very attentive to adolescent's needs, is warm, accessible and supportive. Father has other interests besides childrearing
- (5) Adolescent reports that father is unusually aware and responsive to adolescent's needs, is loving, supportive and accessible. Adolescent's needs generally take precedence to father's

## F. Communication

### 1. Deliberateness of communication with mother

- (0) Insufficient information to code
- (1) Adolescent avoids being with, talking with mother, hides activities, thoughts and feelings
- (2) Mother and adolescent rarely talk with each other. Adolescent is uneasy about sharing activities, thoughts and feelings
- (3) Adolescent makes no special attempt to talk with mother but may share his/her thoughts when they are relevant to mother's domain
- (4) Adolescent goes out of his/her way to talk with mother and will share thoughts, activities and feelings when asked without feeling pushed or defensive
- (5) Adolescent spends a great deal of time talking with mother and shares most of his/her thoughts, feelings and activities freely



2. Deliberateness of communication with father

- (0) Insufficient information to code
- (1) Adolescent avoids being with, talking with father, hides activities, thoughts and feelings
- (2) Father and adolescent rarely talk with each other. Adolescent is uneasy about sharing activities, thoughts and feelings
- (3) Adolescent makes no special attempt to talk with father but may share his/her thoughts when they are relevant to father's domain
- (4) Adolescent goes out of his/her way to talk with father and will share thoughts, activities and feelings when asked without feeling pushed or defensive
- (5) Adolescent spends a great deal of time talking with father and shares most of his/her thoughts, feelings and activities freely

3. Mother is easy to talk to:

- (0) Insufficient information to code
- (1) Never
- (2) Infrequently
- (3) Sometimes
- (4) Most of the time
- (5) Yes, all the time

4. Father is easy to talk to:

- (0) Insufficient information to code
- (1) Never
- (2) Infrequently
- (3) Sometimes
- (4) Most of the time
- (5) Yes, all the time

5. Mother's openness with adolescent

- (0) Insufficient information to code
- (1) Reports that mother maintains an emotional distance or aloofness from adolescent
- (2) Reports that mother is reserved and unwilling, or finds it difficult to share experiences and feelings with adolescent
- (3) Reports that mother occasionally shares own experiences with adolescent, but not often
- (4) Reports that mother is somewhat more open than above
- (5) Reports that mother openly and freely shares relevant experiences and own feelings with adolescent

6. Father's openness with adolescent

- (0) Insufficient information to code
- (1) Reports that father maintains an emotional distance or aloofness from adolescent
- (2) Reports that father is reserved and unwilling, or finds it difficult to share experiences and feelings with adolescent
- (3) Reports that father occasionally shares own experiences with adolescent, but not often
- (4) Reports that father is somewhat more open than above
- (5) Reports that father openly and freely shares relevant experiences and own feelings with adolescent

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