Associations Between Parent-daughter Relationships, Individual Adolescent Psychological Functioning, and Female Adolescent Self-defeating Behaviors

Sara M. Hunt

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ASSOCIATIONS BETWEEN PARENT-DAUGHTER RELATIONSHIPS, INDIVIDUAL ADOLESCENT PSYCHOLOGICAL FUNCTIONING, AND FEMALE ADOLESCENT SELF-DEFEATING BEHAVIORS

by

Sara Mae Hunt

A thesis submitted in partial fulfillment of the requirements for the degree of

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Logan, Utah

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ABSTRACT

Associations Between Parent-daughter Relationships,
Individual Adolescent Psychological Functioning,
and Female Adolescent Self-defeating Behaviors

by

Sara M. Hunt, Master of Science
Utah State University, 2005

This study tested a mediation model by which daughters' perceptions of poorer parent-adolescent relationship quality were expected to be directly associated with the individual psychological characteristics of low self-esteem and internalizing symptoms. In turn, individual psychological characteristics were hypothesized to predict self-defeating behavior, defined as deliberate self-harm and suicidal gestures, multiple sexual partners, and substance use. Additionally, the association between parent-adolescent relationship variables and self-defeating behaviors was posited to be largely indirect and mediated by symptoms of psychological distress. As predicted, perceived alienation from parents was directly associated with poor adolescent psychological functioning. Furthermore, individual psychological variables were found to partially mediate between parent alienation and deliberate self-harm/suicidal gestures. Full mediation was observed
between mother alienation and risky sexual behaviors but not for fathers. No mediation effects were found between both mother and father alienation and daughters’ reported substance use. Research and clinical implications are also discussed.
ACKNOWLEDGMENTS

I cannot believe I finished this thing! I guess all good things must come to an end and I have a few people to thank for getting me this far. I do not have enough words to thank Dr. Renee Galliher for her willingness to explore this topic, as well as her patience and perseverance in those weeks when I showed up for our meetings with not much to show. Her encouragement and keeping me focused on the goal was very motivating, and she is just an all around groovy person. Dissertation or bust!

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A debt of gratitude is owed to my friends near and far. My classmates and friends here in Utah were a tremendous source of support, humor, and venting. Remember, we all take our turns! I also want to thank my friends “back home” in Iowa. To the people who know me and still love me even when they do not hear from me for weeks at a time! I can never thank you all enough for your faith and belief in me that sustains me through this crazy trip called graduate school.

Sara Mae Hunt
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CHAPTER I
INTRODUCTION

Self-defeating behaviors of adolescents have long been a prominent clinical concern and significant social issue. These behaviors have been described as self-imposed actions that are injurious or detrimental to one's welfare or purpose (American Heritage Dictionary, 2000). Self-defeating behaviors are also defined as a class of behaviors that often result in negative outcomes and are continued despite the problems associated with them. Because of the potential threat to physical and/or mental well-being, an examination of self-defeating behaviors is needed. In the theoretical and empirical literature, this class of behaviors has also been referred to as "self-destructive behavior", "maladaptive behavior", or "risk behavior" (DiClemente et al., 2001; Hart, 2001; Noshpitz, 1994; Perl, 1998; Popov, 2002). Throughout this paper, the term "self-defeating behaviors" will be used in descriptions of a range of problem behaviors that fit the criteria outlined above, except in cases in which it is deemed important to retain the specific terminology used by original authors.

Popov (2002) described a system for classifying what he termed self-destructive behavior. The type of self-destructive behavior in which the adolescent engages can be classified into four categories: life-threatening (e.g., suicide attempts), damaging to physical health (e.g., unhealthy lifestyle, self-harm), damaging to spiritual and moral development (e.g., delinquent behavior), and damaging to future social status (e.g., truancy). Additionally, some cross-over is observed, in which behaviors may lead to damaging outcomes in multiple domains. For example, behaviors that fall under the
category of damaging to physical health may also place an individual in situations that are life-threatening, compromise spiritual and moral development, and can be detrimental to future social status. There are three particular self-destructive behaviors in which female adolescents engage that encompass all of these categories and are the focus of this study: deliberate self-harm or suicidal gestures, risky sexual behavior defined as having multiple sexual partners, and substance abuse. These types of self-defeating behavior have become more widely recognized in the past two decades in part because of the increased prevalence rates in each of these areas for adolescents (Hart, 2001). The severity and increased occurrences of these behaviors warrant a closer look at the precipitating factors in order to inform effective treatments.

Self-defeating behaviors are markedly prevalent in clinical work with adolescent girls and young adult women (Perl, 1998) and much of the research indicates that adolescent females may engage in multiple self-defeating behaviors at one time (Forman & Kalafat, 1998; Herpertz, Sass, & Favazza, 1997; Kotchick, Shaffer, Forehand, & Miller, 2001; Ward, 1992). The clinical impression of most mental health professionals is that females constitute approximately two thirds of habitual self-harmers (Favazza & Conterio, 1989). Additionally, Dakof (2000) reported that female adolescent substance use is associated with a number of unique and serious consequences; one of which includes engaging in risky sexual behavior, which could lead to delivering alcohol/drug or sexually transmitted disease-exposed babies. Furthermore, engaging in alcohol abuse or risky sexual behaviors may leave young women at risk for becoming victims of abuse or crime (Dakof). Given the prevalence and potentially detrimental outcomes of female
adolescents engaging in these behaviors, this study will focus on understanding predictors of adolescent females' engagement in self-defeating behaviors.

Much of the current research on adolescent deliberate self-harm (DSH) and suicidal gestures, substance abuse, and risky sexual behavior has examined parent-child relationships and family factors as predictors of different types of adolescent self-defeating behavior. Across behaviors, many of the same maladaptive, negative familial factors were found to predict increased occurrences of self-defeating behavior in adolescent samples (DiClemente et al., 2001; Miller, 2002; Morano & Cisler, 1993). Furthermore, a number of studies indicate that positive attachment to parents may serve as a protective factor with regard to suicidal behavior, risky sexual behavior, and substance use (Hart, 2001). It is important to note that the inclusion of fathers in research on child and family functioning has been largely overlooked (Phares, 1996). Hart stated that a significant amount of research has focused on mother-child relationships, neglecting to investigate the importance of children’s attachments to fathers. This study addresses this void in research by including information regarding daughters’ relationships with both mothers and fathers.

Additionally, several studies have evaluated associations among individual psychological characteristics and self-defeating behaviors. Theoretical and empirical research suggests that self-defeating behaviors may be used by adolescents to regulate negative emotions or cope with aversive or stressful situations or experiences. The association between depressive symptoms and self-defeating behavior has been most commonly examined across the behaviors of DSH and suicidal gestures, risky sexual behavior, and substance use. Furthermore, several models have proposed that
psychological characteristics (e.g., depression, low self-esteem, self-derogation) link negative parent-adolescent relationships to self-defeating behavior.

The current study was designed to further understand the pathways by which adolescents’ perceptions of the parent-child relationship and individual adolescent psychological characteristics are associated with females’ reports of self-defeating behaviors. Theoretical accounts argue that when a child does not experience a warm, nurturing, and attentive primary relationship with a parent or caregiver, she does not learn how to appropriately express or manage difficult emotions and may internalize the impact of these negative interactions. Lacking a healthy language of emotional expression in which to express her emotional pain, the female adolescent resorts to a “destructive physical dialogue” with herself and engages in self-defeating behaviors (Levenkron, 1998, p. 49). A mediational model was posited in which daughters’ perceptions of poorer parent-adolescent relationship quality, operationalized as lower levels of closeness and communication, were expected to be directly associated with the individual psychological characteristics of low self-esteem and increased internalizing symptoms. In turn, individual psychological characteristics were hypothesized to predict self-defeating behavior, defined as deliberate self-harm and suicidal gestures, multiple sexual partners, and substance abuse.
Adolescence is a period of development that has received much attention in the literature, perhaps due to the significant physical and mental changes that occur during this phase of life (Santrock, 1993). Empirical findings suggest that for females, the onset of adolescence is associated with increased incidence of psychiatric difficulties compared to childhood years (Perl, 1998). Specifically, girls become vulnerable to internalizing disorders, and some theorists have suggested that hostility may be turned towards the self in the form of self-defeating behaviors (Perl). The following review of the literature describes three self-defeating behaviors (deliberate self-harm and suicidal gestures, risky sexual behavior, and substance abuse) and examines predictors of these specific self-defeating behaviors in female adolescents. To begin, definitions and prevalence estimates are presented for each behavior, followed by a theoretical and empirical review of self-defeating behavior. The current review of the literature examines family and individual psychological predictors of each specific self-defeating behavior. Finally, a mediating hypothesis is developed that tests direct and indirect associations among family and individual psychological predictors and self-defeating behaviors.

Deliberate Self-Harm and Suicidal Gestures

One of the more difficult and disturbing expressions of psychopathology is the intentional injury or mutilation of the self. In a broad sense, self-harming behaviors can be described as deliberate, nonlife threatening, self-inflicted harm that is not accepted
socially (Walsh & Rosen, 1988). A distinction is made between suicidal attempts or
gestures and deliberate, repetitive self-harm, in that deliberate self-harm is motivated
more by affect regulation than suicidal ideation (Briere & Gil, 1998); suicide attempters
seek to stop all feelings whereas individuals who self-harm seek to escape negative
feelings and thoughts (Favazza, 1998). Briere and Gil further noted that the presence of
DSH is not always an “anti-suicide predictor” (p. 609). The authors reported that research
and clinical experience would suggest that some suicidal individuals self-injure and some
individuals who self-harm report suicidal ideation with self-harming behavior serving as
preparation for an actual suicide attempt.

Deliberate self-harm behavior as a method of coping is evidenced in a growing
number of adolescents (Suyemoto & MacDonald, 1995). The rate of self-injury in
adolescents and young adults (ages 15-24) has been estimated from 800 per 100,000
(Hurry & Storey, 2000) to 1,800 per 100,000 (Favazza & Conterio, 1988). In a
community sample of male and female adolescents, 13.9% of all subjects reported
engaging in self-harming behavior at least once and the majority of self-harmers were
female (64% female; 36% male; Ross & Heath, 2002). In adolescent male and female
inpatients, the rate of incidence of self-harm reaches 40% (Darche, 1990). Self-injury is
likely to be underestimated in reported prevalence rates due to unobservable injuries,
superficial wounds that may not require medical attention, and the fact that, in general,
many DSH adolescents do not seek help (Hurry, 2000). The destructiveness of these acts
combined with the potentially high number of unidentified cases necessitate a serious
examination of the factors that contribute to this emerging disordered pattern of behavior
in order to develop effective treatments.
Similar to DSH, true prevalence rates for suicidal gestures are likely to be substantially underestimated (Hurry, 2000). Furthermore, adolescents who engage in DSH are at much greater risk for suicide than their peers (Hurry). In 2003, as part of the Youth Risk Behavior Surveillance survey, the Centers for Disease Control and Prevention (CDC) reported that of the 70.8% of deaths among youth and young adults (10 - 24 years) in which a cause of death could be determined, suicide was the fourth most common cause (2004). The CDC also found that 16.9% of high school students surveyed around the United States had seriously contemplated suicide in the 12 months prior to completing the survey and 8.5% had actually made an attempt. Further, 2.9% of high school students completing the survey had made a suicide attempt in the prior 12 months that resulted in needing medical attention. Overall, the prevalence rates of having considered attempting suicide or actually attempting suicide were higher among adolescent females than males (considered attempting suicide: females = 21.3%, males = 12.8%; attempted suicide: females = 11.5%, males = 5.4%). Other empirical literature also suggests that female adolescents are more likely than male adolescents to report a history of suicide attempts or gestures; as much as three times as likely (DiFilippo & Overholser, 2000; Hollis, 1996; Martin & Waite, 1994).

Risky Sexual Behavior

Among adolescents, significant health and social concerns result from unintended pregnancies and sexually transmitted diseases (STDs), including the human immunodeficiency virus (HIV) infection. In 2003, a total of 46.7% of high school students had sexual intercourse at least once and 37% of sexually active students had not
used a condom at last sexual intercourse (CDC, 2004). Although the current rate of births for females between the ages of 15-19 is lower than the early 1990s, based on age-specific birth rates, an estimated 18% of current 15-year-old girls will have a child before they reach age 20 (Child Trends, 2003). With regard to STD rates, according to recent data from the CDC (cited in Child Trends), females 15-19 and 20-24 years of age have higher reported rates of chlamydia than females in any other age group.

In general, American adolescents have higher rates of unprotected sex and sexually transmitted infections than adults, and nine times the teen pregnancy rate of their European counterparts (Meschke, Bartholomae, & Zentall, 2000). One reason for these elevated numbers is that in comparison to other age groups, adolescents are more likely to have multiple sexual partners rather than a single, long-term relationship (CDC, 2003). In a study by Luster and Small (1994) of adolescent males and females who attended high schools in four counties in the upper Midwest, 508 out of 1,280 female participants reported being sexually experienced. Of those females reporting sexual activity, 16.6% of female participants had five or more lifetime partners.

The percent of adolescents reporting four or more lifetime sexual partners has experienced a decline from 19% in 1991 to 14% in 2002 (Child Trends, 2003). However, the risks of unintended pregnancies, contracting HIV, or developing sexually transmitted diseases multiply for female adolescents when they engage in sexual intercourse with multiple partners. Furthermore, adolescent girls tend to report less frequent condom use than their male counterparts (Kotchick et al., 2001). Therefore, this combination of risky sexual behaviors makes this an important group to study and one that is currently seldom researched (Luster & Small, 1994).
Adolescent substance abuse is a self-defeating behavior that has long been a widespread health and social concern. In 2003, a nationwide survey of high school students showed that 44.9% of participants had drunk alcohol during the 30 days preceding their completion of the survey (CDC, 2004). Additionally, 22.4% of the sample had used marijuana in the same time period. A study of a community sample of male and female high school students from a New Jersey suburb showed that 16.4% \((n = 1044)\) of the surveyed students reported either abuse or dependence symptoms with alcohol in the past year (Chen, Sheth, Elliott, & Yeager, 2004). Abuse/dependence rates for marijuana and other illicit drugs were 13.4% and 3.9%, respectively. Chen et al. found only minimal differences between adolescent male and female patterns of use, with the exception that males were more likely than females to be current abusers or dependents.

Increases in substance use in the adolescent population have been associated with a decline in adolescent perceptions of the riskiness of and disapproval surrounding substance use (Forman & Kalafat, 1998). Although problematic behaviors such as driving while intoxicated and going to school high occur frequently, few studies have examined them in depth (Johnson, Stiffman, Hadley-Ives, & Elze, 2001). These behaviors put adolescents at greater risk for injury, arrest, and school suspension. Further, adolescents who engage in these behaviors are at higher risk for later psychological and behavioral problems including depression and suicidal thoughts or attempts, risky sexual behaviors, increased delinquent behavior, and violent behavior. In a study of gender differences in adolescent drug abuse, Dakof (2000) found that female adolescents referred for substance
abuse treatment not only used drugs and engaged in externalizing behaviors as often as their male counterparts do, but they were also distinguished by their higher rates of internalizing symptoms and family dysfunction. These characteristics warrant further examination to aid in understanding the process by which adolescent females turn aggression inwards towards the self.

Theoretical Accounts of the Development of Self-Defeating Behaviors

Various explanations have been posited to account for adolescents' engagement in self-defeating behaviors, including environmental stressors (e.g., family relationships) and disturbances in psychological functioning (e.g., depression). These explanations have been formulated from the perspective of a range of theoretical orientations. Broadly, psychodynamic theories have approached self-defeating behaviors from the position that negative events during infancy and childhood introduce an inner presence that functions as a negative ideal of the self. The internalized critical or negative images subsequently guide the adolescent into a pattern of punishment-seeking or self-destruction (Noshpitz, 1994; Perl, 1998). Psychodynamic conceptualizations of self-destructive behavior are largely supported by clinical observation and case report presentations (Briere & Gil, 1998; Hartman, 1996; Shaw, 2002; van der Kolk, Perry, & Herman, 1991).

In contrast, cognitive/affective theories are linked more closely to empirical research in the area of self-defeating behaviors. More specifically, research on self-defeating behaviors has supported an affect regulation model of etiology that posits dysfunctional styles of regulating emotions as a principal characteristic of risky or
destructive behaviors demonstrated by adolescents and adults (Baumeister & Scher, 1988; Cooper, Wood, Orcutt, & Albino, 2003; Silk, Steinberg, & Morris, 2003). In separate theoretical literature reviews by Baumeister and Scher and Westen (1994), a model of affect regulation was proposed suggesting that individuals experiencing frequent or intense negative emotions are more likely to utilize maladaptive coping mechanisms that alter emotions directly and quickly, rather than using coping mechanisms that provide more functional and long-term benefits. Deliberate self-harm and suicidal gestures, engaging in risky sexual behavior, and abuse of substances are all techniques that are associated with "quick fixes" for emotional distress, but are defeating to adolescents' physical and mental well-being in the long term.

Parent-Adolescent Relationship Characteristics and Adolescent Self-Defeating Behavior

Theory and Research on Parent-Adolescent Relationship Characteristics and DSH/Suicidal Gestures

The literature theorizing the nature of the interpersonal relationships of self-harming adolescents, especially studies exploring family dynamics, is sparse. Suyemoto and MacDonald (1995) suggested eight theoretical models for the etiology of self-harm behavior and surveyed mental health professionals to evaluate these models. In a later review of the empirical and theoretical literature, Suyemoto (1998) condensed these eight theoretical models into four major categories encompassing six specific functional models for explaining DSH behaviors. Of these, one model relates to how an adolescent's interactions with her parents may be linked to her engagement in self-defeating behaviors. The environmental model focuses on the interactions between the self-harmer
and her environment, emphasizing that DSH serves both the individual and the environment. The environmental model includes constructs from both behavior and systems theories. This model posits that DSH begins through (a) familial modeling of abuse that leads to a link between pain and care or (b) through modeling and learning that DSH can be beneficial through reinforcements (e.g., receiving attention, gaining control over others, initiating a reaction) from family members or caregivers (Suyemoto). The learned association between pain and care may manifest itself in the adolescent’s attempt to self-care through self-injury. Reinforcement for DSH can also serve the family system by rewarding the adolescent for using self-injury to deflect attention from familial dysfunctions, which in turn supports balance within the family system (Suyemoto).

Additionally, the author explained that DSH serves the family system by the adolescent expressing conflicts and difficult feelings that other family members experience but repress or defend against more successfully.

The empirical body of literature exploring deliberate self-harm is heterogeneous in nature in investigating the contributing factors of this maladaptive behavior. However, researchers have described a somewhat consistent familial history among adolescent females who self-harm. They are often girls with a history of physical or sexual abuse, chronic illness or severe injury, or loss of a parent in childhood (Briere & Gil, 1998; Carroll, Schaffer, Spensley, & Abramowitz, 1980; Favazza & Conterio, 1989; Walsh & Rosen, 1988). In addition, they may be raised in a home environment characterized by frequent changes in caregiver, or in an atmosphere in which the mother was experienced as cold, punitive, and controlling, and the father as distant or seductive (Hartman, 1996; van der Kolk et al., 1991; Walsh & Rosen).
Self-harm in adolescence often occurs during the most intense period of an interpersonal crisis when the adolescent feels most desperate and confused (Hurry, 2000). In a review of the literature, Hurry reported that in 50-75% of DSH cases, males and females under the age of 16 cite arguments with parents as the precipitating factor to engaging in self-harm. In addition, Suyemoto’s (1998) review of the literature found that the most common precipitating factor for engaging in DSH was the self-harmer’s perception of an interpersonal loss.

Regarding suicidal gestures and ideations, Henry, Stephenson, Hanson, and Hargrett (1993), proposed an ecological approach to understanding adolescent suicidal behaviors. From a review of the theoretical literature, the authors integrated various theoretical approaches to explaining adolescent suicide into a human ecological model. Henry et al. found several factors in the family microsystem that might be associated with increased adolescent suicidal behaviors at the organism or individual adolescent level. These include loss of a family member, feeling ignored by parents, economic insecurity, parental alcohol use, depression or suicide attempts in other family members, high parental expectations, ineffective family communication and interaction patterns, and earlier child abuse and neglect. The authors further reported that the literature indicates that adolescents who come from rigid families with lower emotional bonding, poor conflict management, and ineffective communication patterns may be at an increased risk for suicidal behaviors.

As part of a series of studies on early detection of adolescent suicide, Martin and Waite (1994) investigated relationships between parenting styles and adolescent suicidal thoughts and acts from self-reports of 681 Australian adolescent males and females.
Participants who described either parent as exhibiting affectionless control were at increased risk for deliberate self-harm threefold and at double the relative risk for suicidal thoughts. The authors reported that female participants' lower scores on parental care and higher scores on parental protection were significantly associated with suicidal thoughts, maternal care $t(85) = -4.79, p < .001$; maternal protection $t(85) = 3.04, p < .01$; paternal care $t(82) = -4.49, p < .001$. Additionally, Hollis (1996) reviewed clinical records for 284 children and adolescents who were hospitalized for suicidal behavior to assess the influence of family relationship difficulties on the risk of adolescent suicidal behavior. Results indicated that factors of familial lack of warmth, family discord, and disturbed mother-child relationships each made an independent contribution to the risk of suicidal behavior above and beyond the risk of associated psychiatric symptoms. Hollis suggested that familial lack of warmth, poor relationships with parents, and family discord may result in limited opportunities for learning social problem-solving skills, as well as may create an environment where an adolescent receives inadequate support to buffer him or her against the effects of stressful life events and/or depression.

Theory and Research on Parent-Adolescent Relationship Characteristics and Risky Sexual Behavior

A review of the literature by Meschke et al. (2000) of the current trends in adolescent sexuality concluded that parent-adolescent communication and its relationship to adolescent sexual behavior has been more thoroughly researched than any other parental influence in this area. In general, more frequent and positive parent-adolescent communication has been most commonly associated with fewer sexual partners, as well as later and less sexual activity by the adolescent. In addition, parental closeness to and
support for adolescents have been related to reduced adolescent sexual activity and increased contraceptive use. For example, Hart (2001) found that the more distant daughters felt from their fathers, the more likely they were to engage in risky sexual behavior. Additionally, less adolescent closeness with parents has been associated with increased peer influence with regard to sexual concerns (Meschke et al.; Miller, 2002). Miller's review of 55 empirical studies found that several studies in this area indicated that parent-child closeness was associated with reduced adolescent pregnancy risk through several mediators such as having fewer sexual partners.

Despite the growing body of literature, however, several authors have argued that the quality of communication and the supportive nature of the parent-adolescent relationships require further examination. Miller, Norton, Fan, and Christopherson (1998) suggested that the quality of parent-child communication may not affect adolescent sexual behaviors directly. Yet because communication quality was found to be related to the development of adolescents' sexual values and intentions, it appears to affect their sexual behaviors indirectly (Miller et al.). These findings support a sexual socialization theory posited by Rodgers (1999), which suggested that adolescents who talked with their parents about sexual issues were able to form judgments about their sexual behavior. Rodgers hypothesized that adolescents who communicate with their parents about sexual issues were likely to know parental expectations regarding sexual responsibility, as well as specific ways to minimize sexual risks.

Much of the research on risky sexual behavior in adolescence also supports the notion that higher levels of parental monitoring promote the delay of sexual debut, a lower number of sexual partners, and more consistent use of contraception (Meschke et
al., 2000; Miller, 2002). For example, DiClemente and colleagues (2001) surveyed 522 adolescent African American females from low-income neighborhoods to explore the influence of perceived parental monitoring on various adolescent risk behaviors. Results showed that less-perceived parental monitoring was marginally associated with reporting multiple sex partners in the past 6 months ($p = .05$), as well as endorsing having a partner who is believed to have concurrent sexual partners.

Additionally, adolescent females who viewed their parents as psychologically controlling have been found to take more sexual risks (Rodgers, 1999). According to the socialization theory suggested by Rodgers, when parents foster adolescent psychological autonomy, they promote responsible and moral decision making in adolescents. In contrast, psychological control (e.g., instilling anxiety, controlling through guilt, or withdrawing love) fails to promote maturity or responsibility for one’s actions. Rodgers posited that the adolescent’s decision to become involved in a monogamous relationship and to use consistent, effective contraception was an indicator of psychosocial maturity.

Theory and Research on Parent-Adolescent Relationship Characteristics and Substance Abuse

Petraitis, Flay, and Miller (1995) reviewed 14 multivariate theories of experimental substance use by adolescents. Of these, one theory emphasized interpersonal factors such as commitments to conventional values and family attachments, which have implications for the association between parent-adolescent relationship characteristics and adolescent substance abuse. The authors observed that conventional commitment and social attachment theories are based mainly on classic sociological theories of control, which state that “deviant impulses that all people
presumably share are often held in check or controlled by strong bonds to conventional
society, families, schools, and religions” (p. 71). Conversely, adolescents who lack such
controlling influences may not feel controlled by or compelled to adhere to conventional
standards of behavior. Petraitis and colleagues suggested that weak attachments to
conventional role models (especially parents) may lead the adolescent to feel detached or
estranged from their conventional influences, which in turn will cause the adolescent to
form attachments with peers who use substances and encourage substance use in others.
They posited that these negative peer relationships are likely to form if, during earlier
developmental stages, these adolescents had infrequent opportunities for rewarding
interactions at home, possessed few of the necessary interpersonal skills for successful
and rewarding interactions at home, and received little reinforcement during their
interactions with parents.

Family factors such as a chaotic home environment, ineffective parenting, and
lack of attachments and nurturing have been hypothesized to be among the most
significant of risk factors for substance use (Forman & Kalafat, 1998). A review of the
empirical literature by Hoffman (1993) tested three common pathway models to
adolescent substance use. He concluded that the quality of the parent-child relationship
influences adolescent drug use more than the structure of the family. Warm and loving
relationships between parents and adolescents, greater family involvement, and better
supervision by parents were associated with lower rates of adolescent substance use. Hart
(2001) also observed a statistically significant correlation between attachment to fathers
and substance use in adolescent females ($r = -.20, p = .006$). The less close daughters felt
to their fathers, the more likely they were to engage in substance use. Furthermore, lack
of parental monitoring has also been associated with substance use in female adolescents (DiClemente et al., 2001). Adolescents who perceived less parental monitoring endorsed engaging in recent alcohol and marijuana use.

*Summary of Family Correlates of Self-Defeating Behavior*

This review of the literature indicates a common pattern in the parent-child relationships of female adolescents who engage in DSH or suicidal gestures, risky sexual behavior, or substance abuse. In general, these relationships are characterized by poor parent attachment, a lack of parental warmth and support, poor communication styles, and a lack of parental involvement or monitoring. In addition, across these behaviors, current research indicates that the loss of a parent or caretaker also impacts self-defeating behaviors in adolescents.

These findings support theoretical assumptions that dysfunctional family environments and poor parent-child relationships negatively affect the development of problem-solving skills, communication skills, and affect management skills in adolescents. The stress of a break down in family relationships might lead to adolescent psychological distress, which in turn may influence the adolescent to engage in maladaptive coping strategies. In the next section, affect regulation theories will again be explored through the review of empirical research to investigate the associations between individual psychological functioning and engaging in self-defeating behaviors.
Individual Psychological Characteristics and  
Adolescent Self-Defeating Behavior  

Theory and Research on Individual Psychological  
Characteristics and DSH/Suicidal Gestures  

Suyemoto (1998) proposed an affect regulation model to explain DSH, which stems from ego psychology in that it describes the development of the ability to express or contain affect and need. Because affect and need stem from developmental experiences, the affect regulation model is also significantly related to object relations and self-psychology. Much of the literature suggests that DSH serves to express and externalize overwhelming emotion that is often tied to abandonment or rejection from a love object (i.e., mother or other caretaker), as well as to create a sense of control over that emotion (Suyemoto). This model states that anger towards the rejecting object is not directed outward, but is turned against the self for (a) needing the object and (b) feeling anger towards the object.

Tyler, Whitbeck, Hoyt, and Johnson (2003) supported the affect-regulation model posited by Suyemoto (1998) in identifying why some adolescent males and females engage in DSH and others do not. The authors used Suyemoto’s affect-regulation model to interpret findings from their study on self-mutilation in homeless youth. Homeless youth who experienced numerous stressors (e.g., different forms of abuse, leaving home at an early age, staying on the street, etc.) were reported to use self-mutilation as an alternative way to express or regulate overwhelming negative emotions.

Despite various historical conceptualizations of self-harm, much of the contemporary theoretical and empirical literature is in agreement that DSH is directly
linked to psychological stress such as dissociation, feelings of helplessness, depression, and anxiety (Shaw, 2002). Compared to their non-self-harming counterparts, adolescent female inpatients that self-harm exhibit higher levels of depression, anxiety, and somatic complaints, and receive more Axis I diagnoses of affective disorders (Darche, 1990). Further explanations for DSH include anger, low self-esteem, and an inability to self-soothe (Suyemoto, 1998). Self-harm behaviors are hypothesized to relieve or control negative affect, serve as self-punishment for the individual, attribute blame towards others, communicate distress, or seek attention (Hartman, 1996). The self-harming adolescent female tends to have difficulty in articulating emotions as well as perceiving others’ emotions, suggesting a deficit in the capacity for communication that expresses emotions (Levenkron, 1998). Clinical samples endorsing DSH reported difficulty expressing anger and conversely internalize it in the form of cutting, burning, or hitting (Herpertz et al., 1997).

Similar individual psychological characteristics and dysfunctional affect regulation strategies are associated with suicidal gestures. Henry et al. (1993) summarized psychological characteristics that were found to associate with an increased risk of adolescent suicidal behavior. These characteristics included feelings of hopelessness; difficulty in adapting to change; depression; feelings of loneliness; a sense of personal inadequacy, failure, or low self-esteem; social isolation; substance use or other self-destructive tendencies; cumulative stress; and previous suicide attempts or threats. A study by Field, Diego, and Sanders (2001) of 79 male and female high school students found that students who scored in the clinical range for depression on a self-report measure also reported experiencing less happiness and more frequent suicidal
thoughts. Increased feelings of hopelessness may also differentiate depressed adolescents who engage in suicidal behavior from depressed adolescents who report no suicidal behavior (Morano & Cisler, 1993).

Furthermore, in a study by Zlotnick, Donaldson, Spirito, and Pearlstein (1997) of a male and female adolescent clinical population, subjects that had attempted suicide before hospitalization reported higher levels of affect dysregulation than did suicide ideators. The authors observed a significant correlation between the number of self-mutilating behaviors reported and higher levels of affect dysregulation \( (r = .58) \); they posited that adolescent suicide attempters may engage in a variety of self-inflicted assaults in search of an effective method to stabilize negative affect.

Theory and Research on Individual Psychological Characteristics and Risky Sexual Behavior

Kotchick and colleagues (2001) noted that such psychological variables as cognitive competence, self-efficacy (i.e., confidence in using safer sexual practices), self-esteem, psychological distress related to a history of abuse, and cognitive processes (e.g., knowledge about sexual risk-taking, perception of personal risk, attitudes regarding sex) have all been examined with regards to the development of adolescent sexual risk-taking behavior. Additionally, the role of affect regulation has been implicated in the prediction of sexual behavior; researchers have reported that heterosexual and homosexual male and female college students and adults believe that engaging in sexual behavior (including risky acts) has the potential to reduce negative emotions (Cooper, Shapiro, & Powers, 1998; Folkman, Chesney, Pollack, & Phillips, 1992). Negative emotions have also been identified as a predictor of the onset of risky sexual behavior (e.g., multiple partners, sex
with a stranger) among adolescents who were less likely to engage in thrill-seeking behaviors (Cooper et al., 2003). Overall, various indicators of psychosocial distress have been associated with greater sexual activity, including having multiple sexual partners.

Luster and Small (1994) found that female adolescents who reported multiple sexual partners and infrequent contraception use contemplated suicide more than low-risk sexually active or sexually abstaining females. Whitbeck, Conger, and Kao (1993) used self-reports and observer ratings of family interactions for 76 adolescent females and their parents to examine longitudinally the relationships between parental support, adolescent depressed affect, and peers on the sexual behaviors of adolescent daughters. The authors hypothesized that the desire for intimacy among more depressed young women would lead them to have more sexually permissive attitudes. Results suggested that both adolescent self-report of depressed affect and observer ratings of depressed affect were associated with sexual permissiveness. Furthermore, self-reported depressed affect at Time 1 was significantly associated with adolescent’s sexuality at Time 2 one year later ($r = .29, p = .05$). The authors suggested that one explanation for this direct relationship is that adolescents who are emotionally distant or have the need to rebel from parents are more susceptible to peer group influence regarding permissive sexual behavior. They further posited that depressed adolescent females may offset a lack of supportive parental relationships by becoming more accepting of other emotionally intimate relationships outside of the family, such as peer friendships or romantic relationships. The authors stated that young women use sexual expression as “one means of negotiating for emotionally supportive relationships” (p. 275).
Petraitis and colleagues (1995) reviewed several multivariate theories of adolescent experimental substance use. Four theories in which intrapersonal features are highlighted (social ecology model, self-derogation theory, multistage social learning model, and family interaction model) were presented that described characteristics of adolescents who engage in substance use. The authors suggested these characteristics are rooted in relatively permanent personality traits, transient affective states, and behavioral skills, and will influence adolescents’ relationships with a substance-using peers, as well as motivation to use substances. Intrapersonal theories identified low self-esteem, poor social interaction skills, deficient coping skills, emotional distress (e.g., depression, anxiety), and poor impulse control as variables that contributed to adolescent experimentation with substances. However, the authors argued that these theories generally downplay the role of cognitive processes (i.e., beliefs about substance use). Petraitis et al. reported the results of a structural equation model suggesting that intrapersonal characteristics do not affect experimental substance use directly but instead appear to affect beliefs about substance use that, in turn, affect the use of substances.

In their review of a decade of research literature regarding adolescent substance abuse from the 1990s, Weinberg, Rahdert, Colliver, and Glantz (1998) found significant rates of comorbidity of substance use disorder with symptoms of depression, anxiety, eating disorders, and particularly, disruptive behavior disorders in nonclinical adolescent populations. Ninety-three reviewed studies of male and female adolescent populations showed a range of 45-61% of adolescents receiving treatment for substance use also met
the diagnostic criteria for mood disorders and 43% manifested an anxiety disorder. The authors highlighted the fact that the nature of the relationship between mood disorders and substance abuse is somewhat unclear due in part to the mood-altering effects of many abused substances. Other research has indicated that negative emotions may also predict the onset of substance use in adolescents who previously identified themselves as abstainers from alcohol or drugs (Cooper et al., 2003).

**Summary of Individual Psychological Correlates of Self-Defeating Behavior**

Similar to family correlates discussed earlier, this review of the literature indicates another common pattern in female adolescents who engage in DSH or suicidal gestures, risky sexual behavior, or substance abuse. In general, these adolescents report experiencing similar negative psychological characteristics (e.g., depression, low self-esteem), and often describe an inability to express emotional distress in a healthy manner. These findings lend additional support to the theory that possessing poor or dysfunctional affect regulation skills is associated with expressing negative emotions using maladaptive, and at times dangerous, coping mechanisms.

**Integrating the Literature: Testing a Mediation Hypothesis of Self-Defeating Behavior**

Although family relationships have been found to exert an independent effect on self-defeating behaviors, a large body of research indicates a strong psychological and emotional influence. Additionally, a significant number of adolescents who report problematic family circumstances do not endorse engaging in DSH and suicidal gestures,
risky sexual behavior, substance abuse. Therefore, in order to provide a more sophisticated analysis of the development of self-defeating behaviors, hypotheses regarding direct and indirect effects through mediating pathways should be examined.

As stated in Baron and Kenny (1986), mediating variables in certain types of research can signify "properties of a person that transform the predictor or input variables in some way" (p. 1178). Based on this explanation, aspects of adolescent psychological functioning, such as low self-esteem or depressive symptoms, may be an individual quality or one mediating pathway by which changes in family characteristics influence self-defeating behavior. Several authors have speculated that family conflict or distress contributes to adolescent psychological symptoms, which in turn facilitates the development of self-defeating behavior. Empirical support has also been found for different components of this hypothesized pathway.

In their qualitative review of 199 studies regarding child and adolescent depression from the mid-1980s to mid-1990s, Birmaher et al. (1996) reported that depressed youths and offspring of depressed parents depicted family interactions characterized by more conflict, more rejection, more problems with communication, less expression of affect, less support, and more abuse than the family interactions of normal controls. Furthermore, specific events, such as loss of a caretaker, parent divorce, bereavement, exposure to suicide, alone or together with other risk factors (e.g., lack of support), were associated with the onset of depression in children and adolescents. Ward (1992) suggested a mediation model in which depression serves as a link between dysfunctional family characteristics and adolescent self-defeating behavior. In a study testing the development of the Adolescent Attitude Survey (AAS), results from 160
junior high students and college freshmen suggested a pattern of engagement in self-defeating behavior (i.e., suicidal behaviors, conduct problems, sexual acting out, and runaway behavior) as precipitated by family conflict (e.g., parental fighting, physical abuse, sexual abuse, divorce). Ward posited that adolescents living in families with significant conflict are at risk for becoming depressed and engaging in self-defeating behaviors.

Mediating models have been suggested in the research for each of the self-defeating behaviors examined in this paper. In a study of self-mutilation in homeless male and female youth, Tyler et al. (2003) suggested a possible pathway where stressors (e.g., child maltreatment) precipitate negative emotions, which then associate with DSH in some adolescents as a way to regulate and externalize their emotions. Other studies suggested pathways linking parent-child characteristics and DSH through a mediating variable of adolescent psychological or personality characteristics. Adolescent characteristics such as depression, possessing a more internal locus of control (i.e., events are perceived as being the result of one's behavior), low self-concept, and greater state anger have been posited to link parent-child characteristics such as poor communication, family history of suicidal behavior, conflicted mother-daughter relationships, lower parental care and higher parental protection (affectionless control) with DSH (Hurd, Wooding, & Noller, 1999; Martin & Waite, 1994; Tulloch, Blizzard, & Pinkus, 1997).

Whitbeck et al. (1993) presented a model of level of parental warmth and supportiveness, adolescent depressed affect, and adolescents' sexual attitudes from a longitudinal study of family interactions from 76 adolescent females and their parents. Their results supported their hypotheses that unsatisfactory family relationships will
result in the adolescent daughter’s unmet needs for approval, social support, and emotional nurturance. In turn, these unmet needs will manifest in the daughter’s development of depressed affect, which will make alternative relationships (i.e., sexual relationships) more attractive. The authors used a social exchange perspective to support their model, which suggests that adolescent females with unrewarding primary relationships within the family are likely to compensate by establishing alternative emotionally supportive relationships among their age group. As stated previously, young women may view sexual expression as one means of negotiating for emotionally supportive relationships (Whitbeck et al.).

One of the most frequent comorbid diagnoses found in adolescents with depression is substance abuse (20-30%; Birmaher et al., 1996). On the whole, major depressive disorder precedes the onset of alcohol or substance abuse by an average of 4.5 years (Birmaher et al.). A transactional model in which family factors influenced adolescent substance use through mediating variables such as adolescent self-control, life events, and peer affiliations was posited in a review by Wils and Yaeger (2003). The authors reviewed findings from 15 studies regarding four family factors: family substance use, parental support and monitoring, parent-child conflict, and family life events. Wils and Yaeger indicated that family factors are strongly related to adolescent self-control characteristics (i.e., poor self-control or impulsiveness), which in turn are risk factors for adolescent substance use. Family factors not only included parental substance use, but also included related disruptive family interaction processes, such as lower levels of parental support, higher levels of parent-child conflict, and an increase in negative family events. Furthermore, negative adolescent self-control characteristics were related to
contiguous factors such as negative life events and deviant-peer affiliations, which were strongly linked in the authors' review of the literature to the onset and rise of adolescent substance use.

Conversely, in a study by Johnson and colleagues (2001), hypothesized pathways to adolescents' utilization of substance-specific services were not supported. The authors found that family substance dependence, in combination with a negative environment, predicted adolescents' symptoms of depression. However, depression was not associated with participants' substance misuse. Rather the authors reported that family substance dependence predicted adolescent misuse with no mediating variable of adolescent psychopathology. Johnson et al. concluded that the lack of association between depression and adolescent substance misuse could have been the result of the depressive symptoms evaluated.

In summary, much of the previous research has examined the effects of either family factors or individual factors on adolescent self-defeating behavior, but there have been few efforts to analyze the effects of both simultaneously (Shagle & Barber, 1993). However, the few recent studies do provide support for a mediation model in which individual psychological characteristics serve as a compelling intermediary between negative parent-child relationships and adolescent DSH or suicidal gestures, risky sexual behavior, and substance abuse. A common pattern arises in which poor parent-child attachment negatively influences the psychological well-being of adolescents. It is suggested that the family environment does not provide a nurturing and supportive climate in which to express negative emotions; in turn the adolescent learns to internalize
distressing feelings and relieve emotional discomfort through coping mechanisms that are maladaptive and self-defeating in nature.

The current study is proposed to test a mediation hypothesis that:

- poorer communication, less trust, and more alienation perceived by adolescent daughters in their relationships with mothers and fathers predict DSH and suicidal gestures, multiple sexual partners, and substance abuse;

- individual psychological characteristics of more internalizing symptoms and low self-esteem also predict high rates of DSH and suicidal gestures, multiple sexual partners, and substance abuse; and

- the association between parent-adolescent relationship variables (trust, communication, and alienation) and self-defeating behaviors (DSH and suicidal gestures, multiple sexual partners, and substance abuse) is largely indirect and is mediated by symptoms of psychological distress (internalizing symptoms and low self-esteem; see Figure 1).
Parent-child Relationship Characteristics
Mother communication
Mother trust
Mother alienation

Father communication
Father trust
Father alienation

Adolescent Psychological Functioning
Self-esteem
Internalizing symptoms

Self-defeating Behaviors
Self-harm/suicidal gestures
# of sexual partners in the past year
Drug frequency
Drug problems

Figure 1. Mediation pathways.
CHAPTER III
METHODS

Design

A correlational design was used for the study, examining the associations among self-report measures of parent-adolescent relationship quality, self-esteem, internalizing symptoms, and self-defeating behaviors. Data for this project were collected as part of a larger study funded by a Utah State University New Faculty Grant and by B/START grant number 1 R03 MH064689-01A1 from the National Institute of Mental Health, both awarded to Renee V. Galliher, Ph.D. The larger project examined relationship processes in 92 adolescent romantic couples; data from female couple members was used for this project.

Participants

Female participants were between 14 and 18 years of age, and were in romantic relationships that had lasted at least one month. The average length of relationship was 55 weeks, and ranged from about a month to six years. Seventy-five percent of the couples had been dating for less than a year and a half. Individuals under the age of 18 were required to have written parental consent in addition to providing written assent, while those who are 18 provided only their own signature (see Appendix A for consent form). Each participant was compensated for participation with $30.

Two recruitment strategies were used. First, target adolescents were recruited from rural high schools located in Cache Valley. Students were randomly selected for
telephone recruitment from school directories. Interested and eligible target adolescents were sent letters describing the study and copies of the informed consent form for both couple members via US mail (see Appendix A). Follow up phone calls were made one week after the packet was sent to confirm eligibility and willingness of both partners and to schedule a data collection session. In order to ensure an ethnically diverse sample, oversampling of Latino youth was accomplished by offering a $10 referral bonus to Latino target adolescents who referred friends or acquaintances for participation. Second, as part of the larger study examining cultural differences in adolescent romantic relationship processes, Native American target adolescents and their partners were recruited from a public high school located near the border of a large southwestern American Indian reservation. School personnel assisted in the recruitment and scheduling of couples recruited through the high school.

The racial background of female participants was: 61% White, 2% African American, 1% Asian, 16% Latino/Hispanic, and 20% Native American. The average age was 16.55 years. The religious affiliation was 61% Mormon (LDS), 10% Catholic, 17% Baptist, and 12% other, which typically was a traditional Native American religion. Forty-three percent of the female adolescents were employed. Sixty-three percent of participants' parents were married to each other, 18% had divorced or separated parents, and 8% of the parents had never married; the remaining 11% were unspecified.

Procedures

Data collection for this project took place as part of a larger study examining relationship processes in adolescent romantic relationships. The data collection procedure
took approximately three hours per couple. Couples recruited via phone solicitation in Cache Valley came to the Dating Couples Lab on the Utah State University campus. Data collection in the public high school took place in conference rooms set aside by the school personnel. Participating couples were provided beverages and snacks throughout the session to maintain their concentration and interest. As part of the larger study, couples were videotaped having problem-solving conversations during the first hour of participation and then alternated between completing a video-recall procedure used for the larger study and a collection of questionnaire measurements. Both the video-recall procedure and the questionnaire measures were completed on laptop computers. Couple members completed the video-recall and questionnaire portions of the study alone in separate rooms, providing privacy from research staff and each other. While one couple member engaged in the video-recall procedure, the other completed the questionnaire. To avoid order effect, couples alternated the gender order that the recall and the questionnaire were administered with each session. The larger packet of questionnaires required approximately one hour to complete. The specific measures relevant to the current study are described below. See Appendix B for copies of all noncopyrighted measures.

Questionnaire Measures

Demographic Information

The demographic section assessed race, age, gender, educational attainment, educational goals, religiosity, and educational attainment of parents.
Inventory of Parent and Peer Attachment

The Inventory of Parent and Peer Attachment (IPPA) is a self-report measure of parent-adolescent relationship quality (Armsden & Greenberg, 1987). Twenty-eight items are answered separately for both mother and father. Ratings are summed to provide scores on three subscales for each relationship: trust (e.g., I trust my mother), communication (e.g., I like to get my mother’s point of view), and alienation (I don’t get much attention at home). A total attachment score is obtained by summing the trust, communication, and reverse scored alienation items, reflecting overall quality of the relationship. Youth completing the questionnaire are asked to indicate how often each statement is true for them on a 5-point Likert-type scale (1 = almost always/always true; 5 = almost never/never true). Positively worded items on the trust and communication scales are reverse scored so that higher scores indicate greater trust and communication. The mean test-retest reliability over a three-week period of the IPPA was .93 for the Parent Attachment measure and .86 for the Peer Attachment measure for 17-20 year olds (Armsden & Greenberg). Obtained alphas for female participants in this study were .93 (mother trust), .90 (mother communication), .82 (mother alienation), .93 (father trust), .90 (father communication), and .76 (father alienation).

Correlations among the three subscales for each parent showed high correlations between mother communication and mother trust ($r = .838$, $p = .000$) and father communication and father trust ($r = .824$, $p = .000$), suggesting that the trust and communication scales may not be assessing unique constructs. In order to avoid problems with multicolinearity in the regression analyses, only parent communication and parent alienation subscales were used in analyses testing the mediation model.
**Rosenberg Self-Esteem Scale**

The Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965) includes 10 items assessing global self-esteem. The items are answered on a 4-point Likert-type scale (1 = strongly agree, 2 = agree, 3 = disagree, 4 = strongly disagree) and are averaged to create a global score of self-esteem. Example questions include: “I feel that I am a person of worth, at least on equal plane with others” and “At times I think I am no good at all.” Positively worded items are reverse scored so that higher scores indicate higher self-esteem. Psychometric properties (Hagborg, 1993; Rosenberg) are generally acceptable. Rosenberg demonstrated the RSES concurrent validity comparing its relationship to depressive affect, psychosomatic symptoms, nurses’ ratings, peer ratings, and a number of other constructs. Additionally, Hagborg compared the RSES to nine separate self-esteem domains to determine the unidimensional nature of the RSES. Hagborg found that the RSES was highly correlated with other measures of self-esteem. Chronbach’s alpha for female participants was .84 in this study.

**Youth Self Report**

The Youth Self Report (YSR) is a widely used self-report measure of adolescent problem behaviors (Achenbach, 1991). The YSR checklist is comprised of 113 questions. Youth completing the checklist were asked to rate to what degree they perceive that they exhibit each of the behaviors included. The items are answered on a 3-point Likert-type scale (0 = not at all true, 1 = sometimes true, 2 = very true). Ratings are obtained for three general areas of problem behavior (internalizing problems, externalizing problems, and total problems) and eight specific areas of problem behavior (anxious/depressed,
withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, rule-breaking behavior, and aggressive behavior). Question examples include: “I cry a lot” and “I am self-conscious or easily embarrassed.” The scores in each of these problem areas are then compared with a reference group of nonclinical children of the same gender and in the same age range.

The mean test-retest reliability over a seven-day period of the YSR was .91 for 15-18 year-olds (Achenbach, 1991). Additionally, the sixth month test-retest reliability in a clinical sample of 12- to 17-year-olds was .69. Several kinds of evidence for the validity of the YSR scores exist. Achenbach found that the YSR was able to discriminate significantly between demographically matched referred and nonreferred youth samples. The referred youths scored significantly higher \( (p < .05) \) on 95 of the 103 problem items.

For the current study, the broadband internalizing scale was used as a measure of depressive/internalizing symptoms. Obtained alpha for female participants was .91. Additionally, responses to YSR questions 18 (“I deliberately try to hurt or kill myself”) and 91 (“I think about killing myself”) were examined to provide information on DSH and suicidal gestures, respectively.

**Dating and Sexual History Questionnaire**

Participants completed a dating and sexual history questionnaire adapted from previous work with adolescent couples (Rostosky, Galliher, Welsh, & Kawaguchi, 2000; Rostosky, Welsh, Kawaguchi, & Galliher, 1999) to assess the age of onset and current frequency of a range of dating and sexual behaviors. One item from this scale was used in
this study. The item asked participants to report the number of sexual intercourse partners they have had in the past year. Response options were 0, 1, 2, 3, and 4 or more.

Substance Use Information

The demographic questionnaire also assessed participants’ drug and alcohol use/abuse history. For this study, two measures of substance use were used. First, drug use frequency was calculated as the sum of the frequency of use over the past month of five different categories of substances (alcohol, marijuana, stimulants, hallucinogens, and inhalants). Respondents reported the frequency of use of each class of substance on a 7-point scale (1 = never; 7 = 40 or more times). Second, drug use problems were calculated as the number of problems associated with substance use endorsed by participants. Problems included driving while intoxicated, fighting while intoxicated, “blacking out,” and engaging in sexual behavior that is later regretted while intoxicated. Problem scores were calculated as the number of problems endorsed and ranged from 0 to 4.
Preliminary descriptive analyses include means and standard deviations for female participants for each of the predictor and criterion variables and correlations among all study variables. Primary analyses were a series of stepwise multiple regression analyses to examine the relationships among parent-child relationship characteristics, adolescent psychological functioning, and adolescent self-defeating behaviors. Separate analyses were performed predicting:

1. adolescent self-esteem and internalizing symptoms from relationship characteristics with both mother and father (communication and alienation),
2. each of the self-defeating behaviors (DSH and suicidal gestures; number of sexual partners in the past year; frequency of drug use; and problems associated with drug use) from parent-child relationship characteristics, and
3. each of the self-defeating behaviors from both parent-child relationship characteristics and self-esteem/internalizing symptoms.

For all analyses, the alpha level used was .05. All statistical procedures used SPSS 13.0.

Preliminary Analyses

Means and Standard Deviations

Table 1 provides a summary of means and standard deviations for all variables. Means for the alienation scores for mothers and fathers were not statistically different,
Table 1

*Means and Standard Deviations for Mediation Model Variables (N = 90)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>Possible range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parent-child relationship qualities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother alienation</td>
<td>17.42</td>
<td>5.03</td>
<td>6 to 30</td>
</tr>
<tr>
<td>Mother communication</td>
<td>31.30</td>
<td>8.61</td>
<td>9 to 45</td>
</tr>
<tr>
<td>Father alienation</td>
<td>17.64</td>
<td>4.99</td>
<td>6 to 30</td>
</tr>
<tr>
<td>Father communication</td>
<td>25.07</td>
<td>8.94</td>
<td>9 to 45</td>
</tr>
<tr>
<td><strong>Individual psychological functioning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>2.85</td>
<td>.48</td>
<td>1 to 4</td>
</tr>
<tr>
<td>Internalizing symptoms</td>
<td>52.26</td>
<td>9.92</td>
<td>32 to 96</td>
</tr>
<tr>
<td><strong>Self-defeating behaviors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-harm</td>
<td>2.61</td>
<td>1.06</td>
<td>2 to 6</td>
</tr>
<tr>
<td>Number of sexual partners in past year</td>
<td>.71</td>
<td>1.06</td>
<td>0 to 4</td>
</tr>
<tr>
<td>Drug frequency</td>
<td>5.86</td>
<td>2.23</td>
<td>5 to 35</td>
</tr>
<tr>
<td>Drug problems</td>
<td>.62</td>
<td>1.12</td>
<td>0 to 4</td>
</tr>
</tbody>
</table>

$t (89) = -0.42, p = .677$, and were in the middle of the scale, with scores roughly normally distributed across the possible range. The mean for mother communication was significantly higher than the mean for father communication, $t (88) = 5.55, p < .001$.

Mean communication scores for mothers were slightly negatively skewed, while mean communication scores for fathers were more normally distributed.

Distributions of scores for measures of psychological functioning and self-defeating behaviors were consistent with expectations for a lower-risk community
sample. The mean for self-esteem was slightly higher than the scale midpoint and the mean for depressive symptoms was lower than the scale midpoint, although neither exceeded acceptable levels of skewness. Participants reported, on average, very low rates of all self-defeating behaviors. Out of the 90 female couple members who participated in this study, 31% endorsed engaging in some sort of deliberate self-harm or suicidal gesture, 32% reported use of at least one of five substances in the past month, and 30% indicated that they experienced at least one problem related to their use of substances. With regards to risky sexual behavior, 59% reported having no sexual partners in the past year, while 23% reported having one sexual partner, 9% reported having two sexual partners, 6% reported having three partners, and 3% reported having sex with four or more partners in the past year.

Correlations

Table 2 presents correlations among all study variables. For most correlations between parent-adolescent relationship quality and other variables (self-esteem, internalizing symptoms, and self-defeating behaviors) correlations were stronger with mother alienation and communication than father alienation and communication. With the exception of father communication, expected significant patterns of association emerged between parent-child relationship characteristics and self-esteem/internalizing symptoms.

Less consistent patterns of association emerged between parent-adolescent relationship variables and defeating behavior variables. Alienation from mothers was
Table 2

Correlation Matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mother alienation</td>
<td>--</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Mother communication</td>
<td>-.675**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Father alienation</td>
<td>.493**</td>
<td>-.370**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Father communication</td>
<td>-.204</td>
<td>.262*</td>
<td>-.415**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
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<td>8 # of sexual partners in past year</td>
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* * \( p < .05 \)  ** \( p < .01 \).
significantly associated with three of the four outcome variables and was marginally significantly associated with drug use frequency ($p = .07$). However, mother communication and father alienation were only significantly correlated with DSH/suicidal gestures and father communication was not significantly associated with any of the four self-defeating behaviors.

In contrast, correlations among self-esteem, internalizing symptoms, and self-defeating behaviors were more consistent with expectations. Only frequency of drug use was not significantly correlated with either self-esteem or internalizing symptoms. Finally, significant positive associations were found among all self-defeating behavior variables with the highest correlation observed between frequency of drug use and number of sexual partners in the past year.

Primary Analyses

*Testing the Mediation Hypotheses*

A series of multiple regressions was performed to evaluate the associations between adolescents' perceptions of parent-daughter relationship quality, individual psychological functioning, and female adolescent self-defeating behaviors. Using procedures outlined by Baron and Kenny (1986), the mediating effects of adolescent self-esteem and internalizing symptoms on the association between mother communication and alienation and father communication and alienation and the dependent variables of self-defeating behaviors were tested. To test for mediation, three regression equations were estimated. In the first equation, the mediators were regressed on the independent variables. The first criterion for mediation is that the independent variables (parent-
adolescent relationship quality) must significantly predict the mediators (self-esteem and internalizing symptoms). This criterion was tested separately for mothers and fathers and for self-esteem and internalizing symptoms. In the second equation, the dependent variables (self-defeating behaviors) were regressed on the independent variables (parent-adolescent relationship quality). The second criterion for mediation is that parent-adolescent relationship quality is significantly associated with self-defeating behaviors in the second equation. Finally, in the third equation, the dependent variable was regressed on both the independent variable and on the mediator. The third criterion for mediation is that, in the third equation, the mediator (self-esteem or internalizing symptoms) is significantly associated with the dependent variable (self-defeating behavior) and the significance of the parent-child relationship variable is reduced or eliminated. Such a pattern of results indicates that the effect of the parent-child relationship variable is indirect and takes place through the pathway of the mediator. If the effect of the independent variable is reduced to zero in the third equation, an interpretation of full mediation is warranted. Partial mediation is observed when the effect of the independent variable is reduced in the third equation but not eliminated. Mediator effects were tested separately for each mediator (self-esteem and internalizing symptoms) and each outcome (self-harm/suicidal gestures, number of sexual partners, drug use frequency, and drug use problems).

**Criterion One**

The first criterion for mediation is that the independent variable is significantly associated with the mediator (see Table 3). Only mother and father alienation scores were
Table 3

Criterion 1: Regression Analysis for Parent-Child Relationship Characteristics
Predicting Adolescent Psychological Functioning

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<td>4.56</td>
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</table>

*Note.* IPPA = Inventory of Parent and Peer Attachment.

significantly associated with self-esteem scores ($\beta = -.48, p < .001; \beta = -.31, p = .01$, respectively) and internalizing scores ($\beta = .37, p = .01; \beta = .48, p < .001$, respectively).

Thus, because scores for communication with mothers and fathers did not meet the first criterion for mediation, they were not used in subsequent analyses. Only scores for alienation from mothers and fathers were included in analyses testing the second and third criterion for mediation.
Criteria Two and Three for Deliberate Self-Harm/Suicidal Gestures

Table 4 summarizes the test of the second and third criteria for mediating effect of self-esteem on DSH/suicidal gestures. For both mothers and fathers, alienation scores were strongly and significantly related to DSH/suicidal gestures when entered into the equation alone (criterion 2). When self-esteem was added to the equation in the third model, the betas for alienation scores were reduced and, for mothers, the \( p \)-value associated with the alienation score was larger; however, both father and mother alienation remained significant in the third model (criterion 3). Thus, results suggest a partial mediating effect but both direct and indirect effects of parent alienation on DSH/suicidal gestures were observed.

Similar results were obtained in tests of the second and third criteria for the mediating effect of internalizing symptoms on DSH/suicidal gestures (see Table 5). Again, partial mediating effects may be supported but results suggest a direct effect of alienation from parents on DSH/suicidal gestures.

Criteria Two and Three for Number of Sexual Partners

Table 6 summarizes the test of the mediating effect of self-esteem on the number of sexual partners. The association between mother alienation and multiple partners was fully mediated by daughters’ reports of low self-esteem. However, alienation from fathers had neither a direct, nor indirect effect on the number of sexual partners. Low self-esteem emerged as the only significant predictor of the number of sexual partners in the analyses of father-adolescent characteristics.
Table 4

Criteria 2 and 3: Testing the Mediating Effect of Adolescent Self-esteem on the Association Between Parent Alienation and Deliberate Self-harm/Suicidal Gestures

<table>
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</table>

Table 7 summarizes the test of the mediating effect of internalizing symptoms on the number of sexual partners. The association between mother alienation and multiple partners was also fully mediated by daughters’ reports of internalizing symptoms. However, alienation from fathers again had neither a direct, nor indirect effect on the number of sexual partners. Similar to the effect of self-esteem, internalizing symptoms emerged as the only significant predictor of the number of sexual partners in the analyses of father-adolescent relationship characteristics.
Table 5

Criteria 2 and 3: Testing the Mediating Effect of Adolescent Internalizing Symptoms on the Association Between Parent Alienation and Deliberate Self-harm/Suicidal Gestures

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Criteria Two and Three for Frequency of Drug Use

Table 8 summarizes the test of the mediating effect of self-esteem on frequency of drug use. Self-esteem had no direct association with daughters’ report of drug use frequency and mother alienation was only a marginally significant predictor of drug use ($p < .10$). Similarly, in the analysis testing mediation of father-adolescent alienation, neither alienation from fathers nor low self-esteem was significantly associated with daughters’ reports of the frequency of drug use.

Table 9 summarizes the test of the mediating effect of internalizing symptoms on frequency of drug use. Similar to the mediating effect of self-esteem, internalizing
Table 6

Criteria 2 and 3: Testing the Mediating Effect of Adolescent Self-esteem on the
Association Between Parent Alienation and Number of Sexual Partners in the Past Year

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symptoms had no direct association with daughters’ drug use frequency, and only a
marginally significant effect was found for mother alienation. Father alienation was not
significantly related to daughters’ reported frequency of drug use.

Criteria Two and Three for Problems
Associated with Drug Use

Table 10 summarizes the test of the mediating effect of self-esteem on daughters’
reports of problems associated with drug use. Mother alienation appeared to be the most
salient predictor of daughters’ endorsement of problems resulting from drug use; self-
esteeam did not serve as a mediator or contribute significantly to reports of drug problems.
### Table 7

**Criteria 2 and 3: Testing the Mediating Effect of Adolescent Internalizing Symptoms on the Association Between Parent Alienation and Number of Sexual Partners in the Past Year**

<table>
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</table>

In contrast, alienation from fathers was neither directly, nor indirectly associated with reported problems with drugs. In analyses predicting drug use problems from father alienation, self-esteem emerged as the only significant predictor of drug use problems. Table 11 summarizes the test of the mediating effect of internalizing symptoms on daughters’ reports of problems associated with drug use. Mother alienation again appeared to be the most important predictor of daughters’ endorsement of problems resulting from drug use, although internalizing symptoms had a marginally significant association with drug problems. Similar to the results testing the mediating effect of
Table 8

Criteria 2 and 3: Testing the Mediating Effect of Adolescent Self-esteem on the Association Between Parent Alienation and Drug Frequency

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</table>

self-esteem, alienation from fathers had neither a direct, nor indirect effect on reported problems with drugs, but internalizing symptoms emerged as a significant predictor of drug use problems in the analyses of father-adolescent characteristics.
Table 9

Criteria 2 and 3: Testing the Mediating Effect of Adolescent Internalizing Symptoms on the Association Between Parent Alienation and Drug Frequency

<table>
<thead>
<tr>
<th>Variable</th>
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<th>$df$</th>
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<th>$\beta$</th>
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<td><strong>Father</strong></td>
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Table 10

Criteria 2 and 3: Testing the Mediating Effect of Adolescent Self-esteem on the Association Between Parent Alienation and Drug Problems

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Table 11

Criteria 2 and 3: Testing the Mediating Effect of Adolescent Internalizing Symptoms on the Association Between Parent Alienation and Drug Problems

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<tr>
<td><strong>Father</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
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</table>
This study was designed to further understand the pathways by which adolescents’ perceptions of parent-child relationships and individual adolescent psychological characteristics are associated with females’ reports of self-defeating behaviors. A mediation model was posited in which daughters’ perceptions of poorer parent-adolescent relationship quality, operationalized as lower levels of closeness and communication, were expected to be directly associated with the individual psychological characteristics of low self-esteem and more internalizing symptoms. In turn, individual psychological characteristics were hypothesized to predict self-defeating behavior, defined as deliberate self-harm and suicidal gestures, multiple sexual partners, and substance use.

The results of the analyses of mediating effects provided some support for the mediating hypothesis for some of the outcomes (see Tables 12 and 13). A direct relationship was identified between mother and father alienation and poor adolescent psychological functioning. This was a necessary first step in examining support for the mediation model. From there, outcomes for DSH/suicidal gestures suggested that including measures of individual psychological functioning in the model reduced, but did not eliminate the significant effect of parent alienation on DSH/suicidal gestures. Analyses predicting the number of sexual partners indicated different associations for mothers and fathers among parent-child alienation, individual psychological functioning, and daughters’ reports of the number of sexual partners in the past year. Daughters’ low
Table 12

*Summary of Criterion 1 Associations*

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Mediating variables</th>
<th>Results</th>
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</tr>
<tr>
<td></td>
<td></td>
<td>Only alienation was significant</td>
</tr>
<tr>
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<td>Father</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Only alienation was significant</td>
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</table>

self-esteem and increased internalizing symptoms fully mediated the link between mother alienation and risky sexual behavior, but this was not the case for fathers. The mediation model was not supported in analyses predicting both substance use frequency and substance use problems. In general, there were fewer direct, and no indirect, associations among parent-child alienation, psychological functioning variables, and substance use measures. The following discussion outlines implications and limitations of results examining predictors of female adolescent self-defeating behaviors and the potential mediators of individual psychological functioning between parent-adolescent relationship characteristics and self-defeating behaviors.
Table 13

Summary of Criteria 2 and 3 Regressions

<table>
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<th>Criterion number</th>
<th>Variables entered</th>
<th>Results</th>
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</thead>
<tbody>
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<td>Alienation</td>
<td>Direct link to D.V.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Alienation</td>
<td>Partial mediation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-esteem</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Alienation</td>
<td>Direct link to D.V.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Alienation</td>
<td>Partial mediation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alienation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internalizing symptoms</td>
<td></td>
</tr>
<tr>
<td># of sexual partners in a year</td>
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<td>Alienation</td>
<td>Direct link to D.V.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Alienation</td>
<td>Full mediation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-esteem</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Alienation</td>
<td>Direct effect on D.V.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Alienation</td>
<td>Full mediation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alienation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internalizing symptoms</td>
<td></td>
</tr>
<tr>
<td>Drug frequency</td>
<td>2</td>
<td>Alienation</td>
<td>Marg. Sig. effect</td>
</tr>
<tr>
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<td>3</td>
<td>Alienation</td>
<td>No effect</td>
</tr>
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<td></td>
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<td>Self-esteem</td>
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<td>Alienation</td>
<td>Marg. Sig. effect</td>
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<td>Alienation</td>
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</tr>
<tr>
<td></td>
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<td>Internalizing symptoms</td>
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</tr>
<tr>
<td>Drug problems</td>
<td>2</td>
<td>Alienation</td>
<td>Direct link to D.V.</td>
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<td>3</td>
<td>Alienation</td>
<td>No effect</td>
</tr>
<tr>
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<td>Self-esteem</td>
<td></td>
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<tr>
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<td>Alienation</td>
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</table>

*(table continues)*
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<th>Criterion number</th>
<th>Variables entered</th>
<th>Results</th>
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<td>Direct link to D.V.</td>
</tr>
<tr>
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<td>3</td>
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</tr>
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<td>Alienation</td>
<td>Direct link to D.V.</td>
</tr>
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<td>3</td>
<td>Alienation, Self-esteem</td>
<td>Partial mediation</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Alienation</td>
<td>No link to D.V.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Alienation, Self-esteem</td>
<td>Direct link to D.V.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Alienation</td>
<td>No link to D.V.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Alienation, Internalizing symptoms</td>
<td>Direct link to D.V.</td>
</tr>
<tr>
<td># of sexual partners in a year</td>
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<td>No effect</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Alienation, Self-esteem</td>
<td>No effect</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Alienation</td>
<td>No effect</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Alienation, Internalizing symptoms</td>
<td>No effect</td>
</tr>
<tr>
<td>Drug frequency</td>
<td>2</td>
<td>Alienation</td>
<td>No effect</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Alienation, Self-esteem</td>
<td>No effect</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Alienation</td>
<td>No effect</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Alienation, Internalizing symptoms</td>
<td>No effect</td>
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<tr>
<td>Drug problems</td>
<td>2</td>
<td>Alienation</td>
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<td>Alienation, Self-esteem</td>
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<td>2</td>
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<td>No effect</td>
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<tr>
<td></td>
<td>3</td>
<td>Alienation, Internalizing symptoms</td>
<td>Direct link to D.V.</td>
</tr>
</tbody>
</table>

Note. D.V. = dependent variable.
The first criterion for supporting the mediation model was to establish a direct relationship between parent-child relationship characteristics and adolescent individual psychological functioning. Results indicated that only alienation from both mothers and fathers was significantly associated with the psychological experiences of low self-esteem and internalizing symptoms for female participants. Although other adolescent research indicates that deficient verbal communication with parents can be a contributing factor to poor child psychological functioning (Field et al., 2001), it appears that female adolescents in this study viewed isolation from parents as more distressing. Field et al. noted that in their study of risk factors of depression in 79 high school seniors, physical affection with parents accounted for 13% of the variance in depression scores with depressed participants reporting less physical affection with parents. Furthermore, adolescents identified with poor psychological functioning have also reported feeling significantly less wanted by their parents than adolescents with no mental problems (Burbach, Kashani, & Rosenberg, 1989). Daughters who feel not only emotionally but physically disconnected from their parents may be at greater risk for psychological distress.

Further examination of criterion 1 results also shows some psychological outcome differences between daughters’ relationships with mothers versus fathers. Bivariate correlations supported a relationship between mother communication and low self-esteem and internalizing symptoms. However, when alienation and communication were entered
into the regression model together in criterion 1, alienation overpowered communication. This suggests that alienation is a more salient relationship experience with mothers. It seems that estrangement from mothers would logically diminish the amount of communication between parent and child. In contrast, there was no evidence of any relationship between father communication and psychological outcomes in either the bivariate correlations or regressions. Mothers have historically been described as the parent more involved in children’s daily functioning and development, and continue to be more likely to maintain the primary caregiver role (Hart, 2001; Hurd et al., 1999; Hutchinson & Cooney, 1998). Thus, if fathers continue to be less involved in day-to-day child care activities, a breakdown in communication with fathers may have less impact on adolescent daughters’ psychological well being. In this particular sample, most participants were recruited from rural communities and identified with more conservative, traditional religious affiliations (e.g., LDS, Baptist). Due to these sample characteristics, the girls in this study may have experienced even more traditional family structure than might be expected for youth from a more diverse population. Replication with diverse samples might further clarify associations among psychological outcomes and relationships qualities with both mothers and fathers.

Predicting Self-defeating Behaviors

Discussion of Predicting DSH/Suicidal Gestures

Results for criterion 2 for both mothers and fathers were as hypothesized. Perceived alienation by either parent was directly associated with daughters’ reports of engaging in DSH or suicidal gestures. This outcome is noteworthy in that DSH/suicidal
gestures was the only self-defeating behavior that was directly associated with both mother and father alienation. This supports past empirical research that suggests a high correlation between girls’ experiences of parental neglect, abandonment, loss, or separation in childhood and adolescence and their engagement in self-harming behaviors. A study by van der Kolk et al. (1991) of adult clinical patients who performed self-harming acts found that although childhood trauma contributed to initiating DSH, lack of secure parental attachments in childhood maintained the behavior in adulthood. With regards to suicidal gestures, feeling ignored or unsupported by parents or experiencing the loss of a parent (e.g., death, divorce) has been commonly reported by female adolescent suicide attempters (Henry et al., 1993; Morano & Cisler, 1993).

Regression results for criterion 3 provided partial support for the mediation model. Acts of DSH/suicidal gestures may at times be influenced directly by strained parent-child relationships or troubling family events (e.g., loss of a parent, abuse situations) without the adolescent experiencing low self-esteem or increased internalizing symptoms. However, considerable research has found distressed adolescent psychological functioning to be associated with a pattern of dysfunctional family relationships and self-defeating coping techniques. Feeling abandoned or detached from parents may leave adolescents feeling unloved and unsupported, which could negatively affect an adolescent’s image of themselves, as well as generate a depressive emotional state. Without receiving cues from parents as to how to appropriately handle emotional distress, daughters might engage in harming the self in attempts to punish the self for being unlovable or as a maladaptive strategy for managing internalizing symptoms.
Discussion of Predicting Multiple Sexual Partners

Alienation from mothers and fathers was differentially associated with daughters' reports of the number of sexual partners in the past year. In criterion 2, perceived alienation from mothers was directly associated with a higher number of reported sexual partners over a year. Research on adolescent risky sexual behavior has consistently associated parental monitoring and parental support with less frequent sexual behavior (DiClemente, et al., 2001; Kotchick et al., 2001; Meschke et al., 2000; Rodgers, 1999). Consistent with these findings, estrangement or alienation from mothers may indicate less monitoring of daughters' sexual behavior and an insufficient demonstration of support for daughters, which could influence daughters' sexual decision making.

Conversely, alienation from fathers had neither a direct nor indirect effect on the number of daughters' sexual partners. As stated previously, it is difficult to interpret this finding due to the lack of research on father-daughter relationships. However, two studies reported contradictory findings, stating that close relationships with fathers may serve as a protective factor with regards to daughters' engagement in risky sexual behavior (Hart, 2001; Rodgers, 1999). Further research on the impact of father-daughter relationships on adolescents' sexual behavior is warranted.

In criterion 3, mixed results were again found for mothers and fathers. Analyses of mother-daughter relationships indicated that both psychological functioning characteristics fully mediated the pathways between mother alienation and increased number of sexual partners. In the analyses of father-daughter characteristics, low self-esteem and internalizing symptoms each significantly predicted the number of sexual
partners for daughters. Again, it is difficult to interpret these results due to a lack of understanding of father-daughter relationships. Mothers have traditionally been viewed as primary caregivers; as suggested previously, the somewhat rural setting and religious background of the current sample suggests that this is likely the case for many of the daughters in this study. Mothers' roles as primary caregivers may render their support and nurturing more salient in daughters' sexual development. Similar to the proposed pathway model of Whitbeck et al. (1993), the distressed mother-daughter relationship indirectly effects daughters' risky sexual behavior by contributing to the adolescent's low self-esteem or internalizing symptoms, which in turn leads daughters to possibly seek acceptance and nurturing in sexual relationships.

Discussion of Predicting Substance Use

No significant results were observed in analyses predicting daughters' reports of the frequency of drug use. While mother alienation was a marginally significant predictor of more frequent drug use, no other direct or indirect effects were observed. Therefore it appears that while feeling isolated from mothers may contribute slightly to daughters' frequent use of substances, for the most part participants in this study reported no relationship between substance use frequency and personal or relationship distress. Recall that reports of drug use frequency for this sample were very low. Many participants reported no use of any substances over the past month and most who did report use described only a few incidents. The drug use observed by most participants in this sample may reflect normative experimental use of substances by adolescents. Such use may not
be associated with negative family or psychological characteristics and may be better attributed to peer influence.

Results were more varied in the mediation analyses for the outcome of reported problems associated with adolescent use of substances. Mother-daughter analyses indicated that perceived alienation from mothers was the most relevant predictor of daughters' endorsement of problems resulting from drug use. A distressed relationship with a parent may not only affect immediate drug use, but also have an impact on the development of problem behaviors associated with adolescent drug use (Hoffman, 1993). Examination of the mediating effects for psychological functioning in mother-daughter relationships suggested that only internalizing symptoms had a minimal effect on problems due to drug use. Similar to results found for the outcome of risky sexual behavior, experiences of isolation from mothers may indicate less parental monitoring of behavior and a lack of support, which may place daughters at higher risk for negative outcomes associated with drug use. One potential pathway from mother-child relationship distress to higher rates of sexual risk taking and substance use problems may be affiliation with higher risk peers, as suggested by Hart (2001), Whitbeck et al. (1993), and Wood, Read, and Mitchell (2004).

Father-daughter analyses provided additional diverse findings. Father alienation had no association with daughters' reports of problems associated with substance use. The only associations found in this set of analyses were significant relationships between both measures of psychological functioning and increased problems related to daughters' use of substances. Few previous studies have specifically examined father-daughter relationship characteristics, but one report discussed earlier implied a protective factor of
close father attachment with regard to drug use (Hart, 2001). The lack of significant findings in this set of analyses may be due to the small number of participants who endorsed experiencing problems related to substance use. Also, if mothers are more involved in setting standards for adolescents' behavior, monitoring compliance with family rules and expectations, and administering punishment, distance in relationships with fathers may have less association with daughters' engagement in problem behaviors. Results in this section of father-daughter analyses may be better attributed to comorbidity commonly found between substance use and negative psychological functioning in adolescents. Additionally, this study did not assess the influence of peer relations on participants' engagement in substance use and accompanying problematic behaviors.

Limitations

There are a few limitations in the generalizability of results to the overall population of adolescent females. All participants in this study were in ongoing, committed romantic relationships. Because involvement in romantic relationships is normative in middle adolescence and is widely viewed as a desirable status (Carver, Joyner, & Udry, 2003; La Greca & Harrison, 2005), it could be hypothesized that being in a dating relationship could provide a protective psychological function for daughters from dysfunctional relationships with parents and individual feelings of low self-esteem and internalizing symptoms. Previous research, however, has found that involvement in romantic relationships is associated with more depressive symptoms and increased parent-adolescent relationship problems for some adolescents (Joyner & Udry, 2000). Thus, replication with a community sample of adolescent females of varying relationship
characteristics might provide a clearer test of the mediation model's explanation of self-defeating behaviors.

In addition to relationship status, other sample characteristics may raise concerns about generalizability. Participants were recruited primarily from rural communities in Utah and Arizona. The majority of female participants were members of The Church of Jesus Christ of Latter-day Saints (LDS). The traditional and religiously conservative nature of much of the sample may have resulted in restricted range for some of the self-defeating behavior outcomes and may not accurately reflect patterns of association among adolescent females from more urban and less conservative groups. However, despite the fact that the majority of participants had not engaged in sexual intercourse and denied use of alcohol or drugs, rates of self-defeating behaviors were not inconsistent with national norms. In this study, 41% of female participants reported having sexual intercourse; Carver et al. reported a range of intercourse experience from 21% of 14 year olds to 65.9% of 18 year olds. With regards to frequency of drug use, 32% of the participants endorsed using at least one of five substances in the past month, while national statistics indicate that 18% of females ages 12-17 reported alcohol use in the past month, as well as 11% of females in the same age range endorsed using an illicit substance in the past 30 days (Substance Abuse and Mental Health Services Administration, 2005). Thirty-one percent of participants endorsed engaging in some form of deliberate self-harm, suicidal gesture, or suicidal ideation; previous research with community samples yielded self-harm estimates of 13% (Ross & Heath, 2002), suicidal ideation rates of 16.9%, and suicide attempt rates of 8.5% (CDC, 2003). Thus, although future research in this area should target a more diverse population, it appears that this
study sample may not be as incomparable as first suggested. However, a more high risk, clinical sample may provide a clearer explanation of the associations between parent-child relationship characteristics, individual psychological functioning, and self-defeating behaviors.

Similarly, the religious makeup of this sample may have also acted as a confounding variable. It is possible that participants of the LDS faith may have experienced their religious beliefs as a pathway by which they employ coping skills to deal with negative relationships with parents. For example, individual, conservative religious beliefs may influence female adolescents to use more adaptive strategies to deal with parent alienation rather than engaging in self-defeating behaviors, which could be incongruent with their belief systems. Future research could explore the moderating effects of personal religious beliefs, as well as other potential mediators (e.g., impulsiveness, intelligence). The decision to test the individual constructs of low self-esteem and increased internalizing symptoms in this study was due in part to the availability of the measures used as part of the extant dataset. Additionally, much of the previous research in the area of self-defeating behavior supports the examination of these same individual characteristics.

A common limitation cited in research involving adolescents’ self-reports of self-defeating behaviors is the lack of longitudinal data. Participants may have underreported engaging in various behaviors if there had been no recent distressing event to precipitate engaging in self-defeating behaviors as an affect regulation strategy. Interviewing adolescents over time may provide a more accurate estimate of the frequency of the
behaviors, as well as better explain the pathways that lead to engaging in self-defeating behaviors.

Finally, this study is limited in explaining the associations between parent-child relationship characteristics and self-defeating behaviors due to the fact that results were based on daughters’ perceptions only. Parents of participants were not questioned as part of this study and therefore corroboration of daughters’ reports of parent-child relationship characteristics, individual psychological functioning, and practice of self-defeating behaviors is unavailable. Future research that might involve parent report of these variables may provide additional information about family dynamics (e.g., parent psychological functioning, parent engagement in self-defeating behaviors) that may also contribute to disordered behavior in daughters aside from parent alienation and communication.

It should be noted that a strength of this study was the separate examination of father-daughter relationship characteristics. The effects of father alienation on participants’ endorsement of low self-esteem and internalizing symptoms were in general as equally significant as perceived alienation from mothers. Additionally, an important association was identified between detached relationships with fathers and daughters’ use of DSH and suicidal gestures to regulate negative affect. However, father alienation was not associated with daughters’ reports of risky sexual behavior or substance abuse while mother alienation was shown to be related to these outcomes. It is suggested that future research in the realm of DSH/suicidal gestures take a direction towards further exploring the impact of loss, abandonment, or separation of fathers from daughters, as well as
continue to explore the reasons why mother alienation seems to have a more powerful impact on predicting daughters’ engagement in risky sexual behavior and substance use.

Several interesting outcomes were observed in this study of pathways by which adolescent females engage in self-defeating behaviors. Results may help inform clinicians of better treatment practices for adolescent females who report using DSH/suicidal gestures, risky sexual behavior, and drug use as unhealthy mechanisms in response to negative affective states. Involving parents in treatment in attempts to promote closer, warmer relationships with daughters may improve the individual psychological functioning of distressed adolescents and decrease the use of dangerous and maladaptive coping strategies.
REFERENCES


Appendix A: Consent Form
Introduction/Purpose: Professor Renee Galliher in the Department of Psychology at Utah State University is in charge of this research study. We would like you and your boyfriend/girlfriend to be in the study because we want to know about the dating relationships of teenagers your age. We want to learn how other parts of your life (like your families, attitudes, and feelings) affect your relationships and actions. About 100 couples will be in this research study.

Procedures: Your part in this study will be one three-hour session. Your session can be either in our research laboratory on the University campus (see enclosed map) or your home or your boyfriend/girlfriend's home. You and your boyfriend/girlfriend can choose if you want to come to the University or want our researchers to come to your home. The three-hour session will be divided into three parts. First, you will be videotaped having three short conversations with the person you are dating. Second, you will each watch the videotape of your conversations and answer questions about your thoughts and feelings during the tape. Finally, you will fill out some forms that will ask you questions about your attitudes, feelings, family, the way you handle conflict with your partner, your sexual behaviors, and drug and alcohol use.

Risks: There is some risk of feeling uncomfortable in this study. Some teenagers may not want to be videotaped or share personal information with the researchers. We will do everything we can to make you more comfortable. First, researchers will not be in the room while you are having your conversations. Second, you can choose not to discuss personal or difficult issues. Third, you can choose not to answer sensitive questions on the forms.

The law of Utah does require researchers to report certain information (e.g., threat of harm to self or others, abuse of a minor by an adult) to the authorities.

Benefits: We hope that you will find this study to be interesting and fun. Your information will help us learn more about teenagers' relationships. It will also help teachers, parents, counselors, and policy makers in their work with teenagers.

Explanation and Offer to Answer Questions: ______________________________________ has explained this study to you and answered your questions. If you have more questions, you can also ask the Primary Investigator, Professor Renee Galliher, at 797-3391.

Payment: When you finish this research, you and your dating partner will each be paid $30. Your participation does not involve any costs.

Voluntary Nature of Participation and Right to Withdraw without Consequences: Being in this research study is entirely your choice. You can refuse to be involved or stop at any time without penalty.
INFORMED CONSENT/ASSENT FORM
Interaction and Conflict in Rural Adolescent Romantic Couples

Confidentiality: Consistent with federal and state rules, your videotape and answers will be kept private. Only Professor Galliher and research assistants will be able to see the data. All information will be kept in locked filing cabinets in a locked room. Your answers and videotapes will only have an ID number and not your name. Your name will not be used in any report about this research and your specific answers will not be shared with anyone else. Data from this study, including the videotape, may be used for three years by our research team before it is destroyed. When the research has been completed, a newsletter with the general results will be sent to you.

IRB Approval Statement: The Institutional Review Board for the protection of human subjects at Utah State University has approved this research project. If you have any questions regarding IRB approval of this study, you can contact the IRB administrator at (435)797-1821.

Copy of Consent: You have been given two copies of the informed consent. Please sign both copies and keep one for your files.

Investigator Statement: I certify that the research study has been explained to the individual by me or my research staff. The individual understands the nature and purpose, the possible risks and benefits associated with participation in the study. Any questions have been answered.

Signature of PI and Student Researcher:

Renee V. Galliher, Ph.D., Principal Investigator Charles Bentley, Student Researcher

By signing below, you agree to participate.

Youth Assent:
I understand that my parent(s)/guardian is/are aware of this research and have given permission for me to participate. I understand that it is up to me to participate even if my parents say yes. If I do not want to be in this study, I don’t have to. No one will be upset if I don’t want to participate of if I change my mind later and want to stop. I can ask questions that I have about this study now or later. By signing below, I agree to participate.

Signature of Participant Date

Print Name

Parent Consent:
I have read the above description of the study and I consent for my teenager to participate.

Parent’s Signature/Date Print name
When the study is completed, we would like to send you a newsletter outlining the results. Also, we will be conducting additional research on dating relationships and may wish to contact you in the future to participate in other studies. If you would like to receive a summary of the results of the study or if you are willing to be contacted for further research, please provide your name, address and phone number below.

☐ I would like to receive a summary of the results of the study.

☐ I would like to be contacted in the future to be asked about participating in other studies

Name: ____________________________________________

Address: _________________________________________

_________________________________________________

_________________________________________________

Phone Number: ___________________________________
Appendix B: Measures
Demographic Information Form

1. Gender: ___Male ___Female

2. Age: ______

3. Date of Birth: ________________________________

4. Which category or categories best describe your racial background? (check all that apply)
   ___White ___Hispanic/Latino
   ___African American ___Native American
   ___Asian ___Other (please describe)
If you selected more than one category, with which racial background do you most identify?

5. Religious Affiliation:
   ___LDS
   ___Catholic
   ___Protestant
   ___Jewish
   ___Baptist
   ___Other (please specify ________________________)
   ___None

6. How important is religion to you?
   ___Very important ___Fairly important
   ___Fairly unimportant ___not important at all
   ___Don’t know ___Not applicable

7. Are you currently enrolled in school?
   ___Yes, full time ___Yes, part time ___No

8. What grade are you currently in?
   ___Not yet in high school
   ___9th ___10th ___11th ___12th
   ___No longer in High school

9. Your grade point average (GPA) is approximately:
   ___0-1.0
   ___1.1-2.0
   ___2.1-3.0
   ___3.1-4.0
   ___over 4.0

10. Are you currently employed?
    ___Yes ___No

   *IF YES, how many hours per week?
    ___1-10
    ___11-20
    ___21-30
    ___31/more
11. What do you plan to do in the future?
   - Some College Courses
   - College Degree (BA/BS)
   - Graduate School (MA/MS/PhD/JD/MD)
   - Technical School
   - Other (please specify)

12. With whom do you live? (check all that apply):
   - Both Parents
   - Father only
   - Father & Stepmother
   - Father & Girlfriend
   - Other adult relatives
   - Female friend(s)
   - Non-related adult(s)

13. How would you describe where you live?
   - Urban (city)
   - Suburban (subdivision)
   - Rural (country)

14. How long have you lived in your current residence? ________

15. What is your parents' marital status?
   - Married to each other
   - Divorced or separated from each other*
   - Never married to each other
   - Widowed
   - Other

*If divorced or separated, how long have they been divorced? _______ yrs.

16. How far in school did your father go?
   - Some High School
   - High School Graduate
   - Technical School
   - Some College
   - College Graduate
   - Graduate School

17. How far in school did your mother go?
   - Some High School
   - High School Graduate
   - Technical School
   - Some College
   - College Graduate
   - Graduate School

18. What does your mother do for a living?

19. What does your father do for a living?
On how many occasions have you done any of the following things in the past 30 days?

20. Had an alcoholic beverage to drink (beer, wine, or liquor) (Circle only one)
   a. 0 times
   b. 1-2 times
   c. 3-5 times
   d. 6-9 times
   e. 10-19 times
   f. 20-39 times
   g. 40 or more times

21. Used marijuana or hashish (circle only one)
   h. 0 times
   i. 1-2 times
   j. 3-5 times
   k. 6-9 times
   l. 10-19 times
   m. 20-39 times
   n. 40 or more times

22. Used stimulants (cocaine, methamphetamine, “uppers”) (circle only one)
   o. 0 times
   p. 1-2 times
   q. 3-5 times
   r. 6-9 times
   s. 10-19 times
   t. 20-39 times
   u. 40 or more times

23. Used hallucinogens (LSD, mushrooms) (circle only one)
   v. 0 times
   w. 1-2 times
   x. 3-5 times
   y. 6-9 times
   z. 10-19 times
   aa. 20-39 times
   bb. 40 or more times

24. Sniffed glue, gases, or sprays to get high (circle only one)
   cc. 0 times
   dd. 1-2 times
   ee. 3-5 times
   ff. 6-9 times
   gg. 10-19 times
   hh. 20-39 times
   ii. 40 or more times
25. Have you ever driven an automobile while under the influence of alcohol or drugs?

_____ YES   _____ NO

26. Have you ever been in a physical fight while under the influence of alcohol or drugs?

_____ YES   _____ NO

27. Have you ever "blacked out" while under the influence of alcohol or drugs?

_____ YES   _____ NO

28. Have you ever engaged in sexual behavior that you later regretted while under the influence of alcohol or drugs?

_____ YES   _____ NO
Inventory of Parent and Peer Attachment

On a scale of 1 (almost/always true) to 4 (almost/never true) please rate the following statements as they apply your mother. (computer administered version scaled 1 – 5)

**Section I: Mother**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Almost Always True</th>
<th>Sometimes True</th>
<th>Almost Never/ Never True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My mother respects my feelings.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. I feel my mother is successful as parent.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. I wish I had a different mother.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. My mother accepts me as I am.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. I have to rely on myself when I have a problem.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. I like to get my mother's point of view.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. I feel it's no use letting my feelings show.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. My mother senses when I'm upset about something</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. Talking over my problems with my mother makes me feel ashamed or foolish.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. My mother expects too much of me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11. I get upset easily at home.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12. I get upset a lot more than my mother knows about.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>13. When we discuss things, my mother considers my point of view.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>14. My mother trusts my judgement.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>15. My mother has her own problems, so I don't bother her with mine.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>16. My mother helps me to understand myself better.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>17. I tell my mother about my problems and troubles.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>18. I feel angry with my mother.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>19. I don't get much attention at home.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>20. My mother encourages me to talk about my difficulties.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>21. My mother understands me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>22. I don't know whom I can depend on these days.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>23. When I am angry about something, my mother tries to be understanding.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>24. I trust my mother.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>25. My mother doesn't understand what I'm going through these days.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>26. I count on my mother when I need to get something off my chest.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>27. I feel that no one understands me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
28. If my mother knows something I bothering me, she asks me about it.  

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

On a scale of 1 (almost/always true) to 4 (almost/never true) please rate the following statements as they apply your father.

**Section II: Father**

<table>
<thead>
<tr>
<th></th>
<th>Almost/Always True</th>
<th>Sometimes True</th>
<th>Almost Never/Never True</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.</td>
<td>My father respects my feelings.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>17.</td>
<td>I feel my father is successful as parent.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>18.</td>
<td>I wish I had a different father.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>19.</td>
<td>My father accepts me as I am.</td>
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<td>21.</td>
<td>I like to get my father's point of view.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>22.</td>
<td>I feel it's no use letting my feelings show.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>23.</td>
<td>My father senses when I'm upset about something</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>24.</td>
<td>Talking over my problems with my father makes me feel ashamed or foolish.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>25.</td>
<td>My father expects too much of me.</td>
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<tr>
<td>26.</td>
<td>I get upset easily at home.</td>
<td>0</td>
<td>1</td>
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<td>I get upset a lot more than my father knows about.</td>
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<td>My father trusts my judgement.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>30.</td>
<td>My father has his own problems, so I don't bother him with mine.</td>
<td>0</td>
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<td>16.</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>29.</td>
<td>I tell my father about my problems and troubles.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>30.</td>
<td>I feel angry with my father.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>31.</td>
<td>I don't get much attention at home.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>32.</td>
<td>My father encourages me to talk about my difficulties.</td>
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<td>1</td>
</tr>
<tr>
<td>33.</td>
<td>My father understands me.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>34.</td>
<td>I don't know whom I can depend on these days.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>35.</td>
<td>When I am angry about something, my father tries to be understanding.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>36.</td>
<td>I trust my father.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>37.</td>
<td>My father doesn't understand what I'm going through these days.</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
38. I count on my father when I need to get something off my chest.  
   0 1 2 3 4
39. I feel that no one understands me.  
   0 1 2 3 4
40. If my father knows something I bothering me, he asks me about it.  
   0 1 2 3 4

On a scale of 1 (almost/always true) to 4 (almost/never true) please rate the following statements as they apply to your best friend.

**Section III: Best Friend**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Almost/Always True</th>
<th>Sometimes True</th>
<th>Almost Never/ Never True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I like to get my friend's point of view on things that I'm concerned about.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. My friend senses when I'm upset about something.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. When we discuss things, my friend considers my point of view.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Talking over my problems with my friend makes me feel ashamed or foolish.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I wish I had a different friend.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. My friend understands me.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. My friend encourages me to talk about my difficulties.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. My friend accepts me as I am.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I feel the need to be in touch with my friend more often.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. My friend does not understand what I am going through these days.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I feel alone or apart when I am with my friend.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. My friend listens to what I have to say.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I feel my friend is a good friend.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. My friend is easy to talk to.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. When I am angry about something my friend tries to be understanding.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. My friend helps me to understand myself better.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. My friend is concerned with my well being.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. I feel angry with my friend.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. I can count on my friend when I need to get something off my chest.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. I trust my friend.</td>
<td>0 1 2 3 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
21. My friend respects my feelings. 0 1 2 3 4
22. I get upset a lot more than my friend knows about. 0 1 2 3 4
23. It seems as if my friend is irritated with me for no reason. 0 1 2 3 4
24. I tell my friend about my problems and troubles. 0 1 2 3 4
25. If my friend knows something is bothering me, he/she asks me about it. 0 1 2 3 4
Rosenberg Self-Esteem Scale

Please use the scale below to respond to the following statements.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly agree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>1. I feel that I am a person of worth, at least on an equal plane with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. All in all, I am inclined to feel that I am a failure.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I feel that I have a number of good qualities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I feel I do not have much to be proud of.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I am able to do things as well as most other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I wish I could have more respect for myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. I take a positive attitude toward myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. I certainly feel useless at times.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. On the whole, I am satisfied with myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. At times I think I am no good at all.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Dating History and Behaviors

The following questions ask about your dating history, as well as dating and sexual behaviors with your current romantic partner.

HOW OLD WERE YOU WHEN YOU FIRST DID THE FOLLOWING THINGS WITH A BOYFRIEND/GIRLFRIEND

1. went out on a date with a group of friends?
   ______ years
   ______ never done this

2. went out on a date alone with your partner?
   ______ years
   ______ never done this

3. held hands with your partner?
   ______ years
   ______ never done this

4. hugged your partner?
   ______ years
   ______ never done this

5. kissed your partner?
   ______ years
   ______ never done this

6. told your partner you loved him/her?
   ______ years
   ______ never done this

7. were told by your partner that he/she loved you?
   ______ years
   ______ never done this

8. engaged in light petting (that is, intimate touching with clothes on) with your partner?
   ______ years
   ______ never done this
9. engaged in intimate touching without clothing with your partner?
   ______ years
   ______ never done this

10. had sexual intercourse with your partner?
    ______ years
    ______ never done this

IN THE LAST MONTH, how many times have you and your CURRENT PARTNER:

11. gone out with a group of friends?
    a. never
    b. 1-3 times
    c. 4-6 times
    d. 7-15 times
    e. 16-50 times
    f. 51+

12. gone out on a date alone?
    a. never
    b. 1-3 times
    c. 4-6 times
    d. 7-15 times
    e. 16-50 times
    f. 51+

13. held hands?
    a. never
    b. 1-3 times
    c. 4-6 times
    d. 7-15 times
    e. 16-50 times
    f. 51+

14. hugged?
    a. never
    b. 1-3 times
    c. 4-6 times
    d. 7-15 times
    e. 16-50 times
    f. 51+
15. kissed?
   a. never
   b. 1-3 times
   c. 4-6 times
   d. 7-15 times
   e. 16-50 times
   f. 51+

16. told your partner you loved him/her?
   a. never
   b. 1-3 times
   c. 4-6 times
   d. 7-15 times
   e. 16-50 times
   f. 51+

17. been told by your partner that he/she loved you?
   a. never
   b. 1-3 times
   c. 4-6 times
   d. 7-15 times
   e. 16-50 times
   f. 51+

18. engaged in light petting (that is, intimate touching with clothes on)?
   a. never
   b. 1-3 times
   c. 4-6 times
   d. 7-15 times
   e. 16-50 times
   f. 51+

19. engaged in intimate touching without clothing?
   a. never
   b. 1-3 times
   c. 4-6 times
   d. 7-15 times
   e. 16-50 times
   f. 51+

20. had sexual intercourse?
   a. never
   b. 1-3 times
   c. 4-6 times
   d. 7-15 times
   e. 16-50 times
21. How long have you been dating your CURRENT PARTNER?

Please indicate the number of weeks. _____

22. How often do you see your CURRENT PARTNER?
   a. Everyday at school and everyday out of school
   b. Everyday at school
   c. 2-3 times per week
   d. Once per week or less

23. How would you describe the feelings between you and your CURRENT PARTNER?
   a. We ONLY like each other
   b. He/she loves me, I don’t love him/her
   c. I love him/her, she/he doesn’t love me
   d. We love each other

24. How much longer do you think your relationship with your CURRENT PARTNER will last?
   a. Less than a month
   b. 1-3 months
   c. 3-6 months
   d. 6-12 months
   e. more than a year
   f. I expect to marry this person

25. How comfortable are you talking to your current partner about sex?

   Extremely Uncomfortable  Very Comfortable
   1  2  3  4  5  6  7  8  9  10

26. How often have you wanted to go further sexually than your CURRENT PARTNER wanted to?
   a. never
   b. seldom
   c. sometimes
   d. usually
   e. always

27. How often has your CURRENT PARTNER pressured you into going further sexually then you wanted?
   a. never
   b. seldom
   c. sometimes
   d. usually
   e. always
28. How comfortable are you initiating intimate activity (kissing, touching, or intercourse) with your CURRENT BOYFRIEND?

Extremely Uncomfortable Very Comfortable
1 2 3 4 5 6 7 8 9 10

29. How comfortable are you refusing intimate activity (kissing, touching, or intercourse) with your CURRENT PARTNER?

Extremely Uncomfortable Very Comfortable
1 2 3 4 5 6 7 8 9 10

30. In the LAST YEAR, how many boyfriends/girlfriends have you had?

None 1 2 3 4 or more

31. HOW MANY DIFFERENT PARTNERS have you had sexual intercourse with in the last year (including your current partner)?

   a. 1
   b. 2
   c. 3
   d. 4 or more
   e. never had sex

32. How long did your longest dating relationship last?

Please indicate the number of weeks. _____