DEVELOPMENTAL ANTECEDENTS OF TEENAGE PARENTHOOD

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DEVELOPMENTAL ANTECEDENTS OF TEENAGE PARENTHOOD

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DEVELOPMENTAL ANTECEDENTS OF TEENAGE PARENTHOOD

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Charlotte Day Denny Halsey, daughter of Ludwell Wallace Denny and Janice (Westhoff) Fischer, was born May 12, 1979, in Dallas, Texas. She graduated from the Episcopal School of Dallas in 1997. She attended Tufts University in Boston, Massachussetts, for four years and graduated cum laude with a Bachelor of Arts degree in Spanish and Child Development. She then married Charles Harrison Castle Halsey, son of Thomas S. and Elizabeth (Castle) Halsey, on August 11, 2001. She then taught high school Spanish in Phenix City, Alabama for one year before entering the Graduate School at Auburn University in August of 2002. Her son, Austin Copp Halsey, was born on March 2, 2004. Day completed the Master of Science degree in Human Development and Family Studies in May, 2006.

THESIS ABSTRACT

DEVELOPMENTAL ANTECEDENTS OF TEENAGE PARENTHOOD

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Adolescent parenthood is an issue of universal concern because of the negative outcomes associated with both the teen parents and their children. The current study sought to examine father absence and being born to a teen parent as risk factors for teen parenthood. Furthermore, the study sought to examine the additive risk of SES, as well as to examine sex differences for exploratory purposes. Finally, the study sought to examine the role of parental monitoring and affiliation with antisocial peers as moderators of the relationship between father absence and being born to a teen parent and subsequent adolescent parenthood. The findings indicate that father absence and being born to a teen parent are both independently predictive of teen parenthood and that SES adds to their risk for teenage childbearing. Furthermore, father absence is more strongly linked with adolescent parenthood for girls than for boys. Parental monitoring moderates the relationship between being born to a teen parent and subsequent teen parent status, such

that participants who were born to teen moms who report high levels of monitoring were less likely to become teen parents themselves. Parental monitoring did not moderate the relationship between father absence and teen parenthood nor did affiliation with antisocial peers moderate the relationship with father absence or being born to a teen parent and adolescent parenthood. Collectively, these findings suggest that both FA and BTTP are independent predictors of adolescent parenthood, that further research examining sex differences in the risk factors of teen parenthood is necessary, and that moderator analyses can expand the current understanding of the pathways to adolescent parenthood.

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TABLE OF CONTENTS

LIST OF TABLES

I. INTRODUCTION

Teenage parenthood is a topic of universal concern because of the risk of negative outcomes for both the teens and for their offspring. Studies suggest that becoming a mother before the age of 20 is related to fewer academic achievements as well as financial and employment difficulties (Furstenberg, Brooks-Gunn, & Chase-Lansdale, 1989). Although the research is less comprehensive for teen fathers, the preliminary findings suggest similar problems for males (Thornberry & Smith, 1997). In addition, research has shown deleterious effects on children born to teen parents. The results imply difficulties in academic achievement and behavioral problems, such as increased aggression and activity (Furstenberg et al., 1989). In light of current research findings and the negative outcomes associated with early parenthood, it is essential to develop a better understanding of the pathways that lead to early parenthood.

Current findings suggest that the United States has a considerably higher teenage pregnancy rate and a moderate adolescent abortion rate resulting in one of the highest adolescent birthrates among developed countries (Singh & Darroch, 2000). In response to the high numbers of pregnancies and births to teenagers in the United States each year and the negative outcomes associated with teenage parenthood, research has been highly concentrated on identifying the risk factors associated with early parenthood. There is also concern for developing effective interventions to reduce the incidence of teenage parenthood. Identifying factors that moderate the impact of risk factors on teen-parent

outcomes (i.e., risk-buffering protective factors) could shed light on possible targets for interventions.

Although a variety of risk factors have been linked to teen parenthood, representing both intrapersonal (e.g., attitudes) and interpersonal (e.g., parent-child and child-peer relationship qualities) processes, much of the research on the etiology of teen parenthood has stressed the critical role of single parent status and its typical consequence, father absence (FA), in setting the stage for subsequent risky behaviors, including teenage pregnancy and parenthood (Ellis, Bates, Dodge, Fergusson, Horwood, Pettit, & Woodward, 2003; Geronimus & Korenman, 1992). Previous research suggests that FA plays a role in the course to early sexual activity and pregnancy by increasing the family and ecological stress experienced in the home (Coley & Chase-Landsdale, 1998; Ellis et al., 2003; Scaramella, Conger, Simons, & Whitbeck, 1998). The argument is that in father absent homes, social and economic resources are limited and parenting effectiveness is compromised, increasing the likelihood of the child participating in risky behaviors (Manlove, 1997). According to the life course adversity model, it is the accumulation of stressors on the family environment that predicts the outcome of early sexual activity and teen pregnancy (Belsky, Steinberg, & Draper, 1991). However, Ellis et al. (2003) suggest that FA is in fact predictive of early sexual activity and teen pregnancy independent of other family and ecological stressors likely to co-vary with FA (e.g., maternal education and family life stress). Other researchers likewise have found significant effects for FA that could not be accounted for by co-varying stressors (Geronimus & Korenman, 1992). Thus, there are reasons to expect FA to be a potent

predictor of risky behavior in adolescence and more specifically for early sexual activity, pregnancy, and parenthood.

A second variable closely linked to father absence and single parent status is being born to a teen parent (BTTP). Previous research suggests that BTTP is associated with a number of negative environmental factors and childhood outcomes including but not limited to experiencing poverty, lower academic achievement, and behavioral problems (Coley & Chase-Landsdale, 1998; Furstenberg et al., 1989). This association seems to become more potent with time such that in adolescence BTTP is associated with academic failure, delinquency, and early sexual activity and pregnancy (Coley & Chase-Landsdale, 1998; Moore, Moorison, & Greene, 1997). This research has been extended to examine the role of the intergenerational transmission of teenage parenthood. Manlove (1997) found that daughters of teen mothers set a significantly earlier age as the ideal time for childbirth when compared to daughters of non-teen parents. Apart from the possible genetic contributions of teenage parenthood (i.e., that pubertal timing or a genetic predisposition to engage in risky sexual behavior), social learning processes may contribute to the intergenerational transmission of teenage parenthood in that children born to teen parents acquire a set of beliefs that this is a normative transition to parenthood. In addition, children of teen parents may be exposed to multiple dating partners and sexual behaviors, which could influence the likelihood of becoming a teen parent.

As would be expected, FA and BTTP tend to co-occur to some extent, in that marriage (or co-habitation) is less likely among younger mothers than among older

mothers (Miller, Bayley, Christensen, Leavitt, & Coyl, 1998). However, not all children born to teen parents experience FA and vice versa (Astone, 1993; Manlove, 1997). For example, approximately 20% of teen parents marry before or soon after the birth of the child (Miller et al., 1998). Father absence, on the other hand, may stem from marital dissolutions that occur after the birth of the child. As with FA, BTTP has been found to be a significant predictor of teen parenthood in the offspring, independent of other social contextual risk factors (Ellis et al., 2003; Geronimus & Korenman, 1992; Hardy, Astone, Brooks-Gunn, Shapiro, & Miller, 1998; Manlove, 1997). Within the context of a cumulative risk perspective, the likelihood of becoming a teen parent should be greater when a child is both born to a teen parent and is raised in a father absent home (Deater-Deckard, & Dodge, 1997; Gest, Mahoney, & Cairns, 1999). However, this possibility has not yet been examined. A goal of the current study, therefore, was to evaluate both the independent and combined effects of FA and BTTP on the outcome of becoming a teen parent.

The current study extended research previously conducted by Ellis et al. (2003), who utilized the same sample as the current one, drawn from the ongoing Child Development Project (CDP). Ellis et al. (2003) reported that father absence in childhood was associated with sexual activity and teen pregnancy through age 17. The current study sought to build upon these findings by looking at teen parenthood in both males and females through the age of 19. This was important because the risk for becoming a teen parent increases with age and a substantial number of teens become parents in the later teen years (Coley & Chase-Lansdale, 1998). In addition, the current study was concerned

with the parenthood experience rather than whether the participant became pregnant or impregnated another. This was achieved by looking only at those participants who report having a child and recognizes that not all reported pregnancies resulted in this outcome. By including male participants in this study, we were able to determine whether the presumed risk factors operate similarly for boys and girls. As a result of the limited number of studies on the subject, the issue of teenage fatherhood presents a gap in the literature. Few prospective longitudinal studies have examined teen fatherhood, in part because the base rate of teen fatherhood is much lower than that for teen motherhood (approximately 2% and 7% respectively; see Singh & Darroch, 2000; Thornberry & Smith, 1997). However, some research (Fagot, Pears, Capaldi, Crosby, & Leve, 1998) suggests that risks for teen parenthood are similar for girls and boys. There clearly is a need for studies that can test for sex differences in links between FA, BTTP, and teen parenthood outcomes. The current study addressed this goal in an exploratory fashion because relatively few male participants became fathers by the age of 20 years.

In evaluating the role of FA and BTTP it is important to consider the ways in which they may operate in conjunction with socioeconomic status (SES). Previous research suggests that SES is a powerful predictor for teen parenthood (Coley & Chase-Lansdale, 1998; Corcoran, 2000; Gest et al., 1999; Thornberry & Smith, 1997). Children in father absent homes and/or with teenage parents are more likely to experience poverty as a result of limited maternal educational and employment opportunities (Ellis et al., 2003). The current study sought to address this issue by first examining the role of the principal risk factors, FA and BTTP, and then assessing the role of SES, asking whether

socioeconomic factors in early development further added to the risk for teen parenthood once the principal risks of FA and BTTP had been considered. Specifically, the extent to which SES predicted teen parenthood above and beyond FA and BTTP were examined. It was expected that SES would add to the risk for teen parenthood as suggested by previous research (Coley & Chase-Lansdale, 1998; Corcoran et al., 2000; Gest et al., 1999; Thornberry & Smith, 1997).

Another set of questions concerned whether the magnitude of the association between risk factors and teen parenthood was stronger in the presence of other risks and weaker in the presence of presumed protective factors. An amplifying risk factor is one that interacts with other risk factors and serves to moderate the relation between risk factor and outcome. A protective factor is one that attenuates the relation between a risk factor and a problematic outcome. At high levels of the presumed protective factor, the risk-outcome linkage should be weakened. Selection of risk-amplifying and risk-buffering (protective) factors was guided by a life-course adversity model of family and peer socialization (Pettit, Bates, Dodge, & Meece, 1999). Childhood experiences in the family and peer group can impact the course of development of children and potentially influence the pathways to adolescent outcomes. Research suggests that among the many potential social processes associated with adjustment and outcomes in adolescence are affiliation with antisocial peers and parental monitoring. The extent to which affiliation with antisocial peers moderates the relation between BTTP, FA, and teen parenthood was examined. It was expected that participants who are predisposed to become teen parents through the initial risk of growing up in a father absent home and/or being born to a teen

parent would be at a greater risk for teen parenthood if they reported associating with antisocial peers. Previous research suggests that adolescents who affiliate with antisocial peers are more likely to engage in delinquent behavior and substance use (Laird, Jordan, Dodge, Pettit, & Bates, 2001; Scaramella et al., 1998; Whitbeck, Yode, Hoyt, & Conger, 1999). Teens who associate with antisocial peers and engage in delinquent behaviors may be more willing to engage in risky sexual behaviors, such as unprotected intercourse, increasing the likelihood of becoming teen parents (Scaramella et al., 1998). The current study hypothesized that risk for teen parenthood will be amplified by affiliation with such peer groups.

The protective factor of interest here is parental monitoring in early adolescence. Parental monitoring and supervision have been found to be associated with good developmental outcomes in adolescence, and have been shown to moderate the impact of family and socio-ecological risk factors in subsequent adjustment (Crouter & Head, 2002; Dishion & McMahon, 1998; Pettit et al., 1999). In the current study, parental monitoring was defined as parents' general knowledge and understanding of their child's activities, location, and supervision. It was expected that parents who have a greater understanding of their children's whereabouts and activities will act as a buffer attenuating the risk for teen parenthood in the presence of the initial risk factors of father absence and being born to a teen parent. It is possible that by limiting the amount of unsupervised time experienced by the child and by increasing open communication between parent and child, the parents are able to reduce the likelihood that the child will participate in risky behaviors such as unprotected intercourse.

To summarize, the goals of the current project were to evaluate the role of father absence and being born to a teen parent as factors predicting teen parenthood. The study further examined sex differences in the relationship between FA and BTTP and teen parenthood for exploratory purposes. In addition, SES was analyzed to determine if it added to the risk for becoming a teen parent once FA and BTTP had been considered. Finally, the role of affiliation with antisocial peers and parental monitoring were examined as possible moderators amplifying or attenuating the risk for becoming a teen parent. These goals were addressed through the use of data generated as part of the ongoing Child Development Project. This project is a prospective, longitudinal study of 585 children from three urban cities in the United States. Participants were recruited during pre-registration for kindergarten and have been assessed annually. Findings presented in the current study represent data collected during the initial assessment in kindergarten and follow up assessments when the participants were in the 6^{th} and 7^{th} grades (Years 7 and 8) as well as when the participants were 19 and 20 years old (Years 15 and 16).

II. REVIEW OF LITERATURE

The primary goal of the current study was to examine the association of being born to a teen parent (BTTP) and father absence (FA) and adolescent parenthood. A second goal of the current study was to examine the role of SES as an additive influence on the risk for becoming an adolescent parent once the principal risk factors of BTTP and FA have been considered. In addition, the current study sought to explore the role of gender in the association between being born to a teen parent and father absence and teen parenthood for exploratory purposes. Finally, the current study sought to examine the role of parental monitoring and affiliation with antisocial peers as moderators either attenuating or amplifying the risk for becoming a teen parent in the presence of the principal risk factors of father absence and being born to a teen parent.

Relevant to the goals of the current study, the ensuing literature review will present research that will (a) discuss previous findings regarding the association between being born to a teen parent and father absence and teenage parenthood, (b) discuss previous findings in relation to gender and adolescent parenthood, (c) explain and give a rationale for the study of SES as a possible additive risk to BTTP and FA in relation to the outcome of adolescent parenthood, and (d) explore why parental monitoring and affiliation with antisocial peers may serve as moderators for becoming an adolescent parent for these at-risk teens.

Trends of Adolescent Parenthood

Research on the occurrence, precursors, and outcomes of adolescent parenthood is of considerable interest because of the implications these findings may have on policy and intervention work. Furstenberg, Brooks-Gunn, and Chase-Lansdale (1989) noted that research on adolescent parenthood increased in the 1970s, driven in part by changing family dynamics and societal standards that contributed to an increase in teen sexual activity and a decrease in teen marriage. These trends continued throughout the 1980s, with the number of unwed mothers rising sharply (Furstenberg et al., 1989).

Adolescent pregnancy in the U.S. is among the highest of any developed country (Singh & Darroch, 2000), with 70-99 pregnancies per 1,000 adolescents aged 15-19, resulting in approximately 1 million adolescent pregnancies each year. Childbirth likewise occurs at a comparatively high rate in the U.S., with more than 50 births per 1,000 adolescents aged 15-19 (Singh & Darroch, 2000). Considering these statistics, it is important to understand the factors that put teens at risk for teenage pregnancy and childbearing.

As might be expected, adolescents who become parents encounter a number of hardships that adversely impact on their quality of life and that place their offspring at considerable risk for future adjustment difficulties. Teen mothers are more likely to drop out of high school, less likely to maintain stable employment, and more likely to be dependent on public assistance, trapping many of these young women in a state of enduring poverty (Coley & Chase-Lansdale, 1998; Furstenberg et al., 1989). In addition, Coley and Chase-Lansdale (1998) cite poor psychological functioning, marital instability,

and as additional non-marital births among the other negative outcomes associated with adolescent motherhood. A recent study by Jaffee (2002) provides a useful illustration: women participating in the Dunedin Multidisciplinary Health and Development Study who became mothers during adolescence experienced higher levels of anxiety, lower SES, greater financial problems, and more relationship and social support complications, compared to other participants.

Children born to teen mothers face adverse outcomes as well. Furstenberg and his colleagues (1989) found that children of teen mothers compared to children of older mothers were more likely to have academic difficulties and behavioral problems (hyperactivity, aggression and, low self control). Along these lines, Coley and Chase-Lansdale (1998) cite numerous adverse outcomes associated with being born to a teen parent, including but not limited to increased aggression, decreased impulse control, academic failure, delinquency, early sexual activity, and adolescent pregnancy. In terms of socio-cultural risk, children born to teen parents are more likely to grow up in disadvantaged neighborhoods and experience poverty (Furstenberg et al., 1989). Considering the implications associated with teenage pregnancy for both mother and child, it is important to better understand the risk factors that may increase the likelihood of the occurrence of adolescent parenthood.

Risk Factors

A good bit of recent research has focused on identifying the individual, family, and socio-contextual factors that are associated with becoming a teen parent. Coley and Chase-Lansdale (1998) present an overview of the correlates of teenage pregnancy and

parenthood. Summarizing findings from a number of studies, they report that low SES, academic difficulties and school drop-out, alcohol and drug use, early engagement in sexual activity, being born to a teen parent, and single parenthood are related to increased risk for becoming pregnant during the teen years. More recent research conducted by Gest, Mahoney, and Cairns (1999), and by Corcoran et al. (2000), highlight the ways in which such risk factors may operate in conjunction with one another to predict risky sexual behavior in adolescence.

Gest and his colleagues (1999) examined the risk for adolescent parenthood on three levels, the biological, behavioral/academic, and the contextual, using data from the Carolina Longitudinal Study of 475 adolescents assessed from the seventh grade through the age of 24. Teachers' reports provided assessments of behavior on scales of interpersonal competence and aggression, physical maturation, and academic performance. School dropout data were collected from various sources to identify those students who withdrew (voluntarily or involuntarily) prior to the eleventh grade. Interviews with parents yielded information (e.g., occupation) that was used to form a measure of socioeconomic status. Pregnancy and parenthood were also assessed from a variety of sources, including self-report.

The participants were clustered according to their scores for physical maturation, age, interpersonal and academic competence, and SES ratings into four groups in the seventh grade. The clusters were grouped according to the multiplicity of risk factors with cluster 1 being absent of risks and cluster 4 containing multiple risk factors. The findings suggest that females are significantly more likely than males to become teen

parents, with 20% of girls becoming teen parents compared to 8% of boys. In addition, the clusters with multiple risk factors were also more predictive of teenage parenting for both girls and boys, with the risk increasing from 3% to 22% for boys and from 6% to 37% for girls. However, there was no interaction effect, meaning that girls and boys were similar with respect to cluster membership (Gest et al., 1999). Consistent with expectation, risk for teen parenthood was associated most strongly with academic problems and failure, school drop out, behavioral problems, and low SES. Moreover, the additive impact of these factors heightened the level of risk.

Corcoran et al. (2000) also examined risk for adolescent parenthood in terms of multiple risk factors, using Bronfenbrenner's multi-level ecological model as a guiding framework. The convenience sample consisted of 105 teenagers participating in various pregnancy and parenting intervention programs throughout the state of Texas. Macrosystem variables consisted of SES, based on the Hollingshead Index, and race. Teenagers reported the mesosystem variables of family structure, religious orientation, family functioning, and supportive behaviors. Adolescents also reported the microsystem variables of age, drug and alcohol problem behavior, self esteem, and stress. Variables at each ecological level were significant predictors for adolescent pregnancy and included SES, race, family communication and support, age, and alcohol use. These findings are consistent with the cumulative risk perspective, with the combination of risks predicting adolescent pregnancy. Thus, the research suggests that there are numerous risk factors that increase the likelihood of becoming a teen parent. In addition, the accumulation of risk factors increases the potency of risk experienced.

Researchers have successfully identified a variety of risk factors that fall into individual, family, and social domains that contribute to the prediction of teenage pregnancy and parenthood. In addition, findings consistently support a cumulative risk model in which perceived risk is influenced by the number of risk factors experienced. In their review of the literature on adolescent pregnancy and parenthood, Coley and Chase-Lansdale (1998) highlight being born to a teen parent (BTTP) and single parent status (FA) as key risk factors for adolescent pregnancy and parenthood. BTTP and FA have been studied as potential risk factors for teenage pregnancy and parenthood in isolation (e.g. Hardy et al., 1998; Ellis et al., 2003). However, rarely have they been studied together. When BTTP and FA have been included in analyses of risk for teenage parenthood, they have been clustered together, making it difficult to interpret their potential risk for teenage parenthood separate from one another (e.g., Manlove, 1997; Kahn & Anderson, 1992). The current study sought to address this gap in the literature by examining BTTP and FA together as the principle risk factors for adolescent parenthood. The current study sought to clarify the role that BTTP and FA play in predicting adolescent parenthood independent of one another as well as in conjunction with one another. A review of the literature that focuses on BTTP and FA as potential risk factors follows.

Being Born to a Teen Parent

Being born to a teen parent is a risk factor for subsequent adolescent parenthood that has been identified by numerous studies (e.g. Furstenberg et al., 1989; Geronimus & Korenman, 1992; Hardy et al., 1998; Manlove, 1997). Research suggests that within teen

parent households children are socialized to be more accepting of early parenthood, out of marriage sexual relations, and to set earlier preferences for parenting.

Hardy et al. (1998) explored the intergenerational trends in age at first birth. The longitudinal study, The Pathways to Adulthood Study, followed three generations of a family for 34 years and included 2,306 first generation (G1), 2,694 second generation (G2) and 2,343 third generation (G3) participants. The measures included self-report questionnaires and in home observations and interviews (Hardy et al., 1998). Participants were grouped according to the age at first birth into one of three categories, teen parents (younger than 20), early parents (20-25), and later parents (over 25 years). Similar to the proposed study, teen parents in this study were those who had become a parent before their twentieth birthday. However, analyses also explored outcomes for early parents, those who became parents before their twenty-fifth birthday.

The results suggest that patterns of intergenerational age at the birth of the first child are similar for males and females. Considering only first born children of the G2 generation, 40% of the girls born to a teen mother became a teen parent and 21% of the boys of teen mothers became a teen father (Hardy et al., 1998). Of the G2 teenage parents, 73% of the teenage mothers and 71% of the teen fathers were born to a teen parent. In addition, when analyses were conducted to compare ages at first birth for all of the children born to G1 parents, the timing of childbirth between generations remained significant, suggesting that the pattern of age at first birth is significant for all children, both sons and daughters, regardless of the ordinal position in the family. This finding suggests that the risk for becoming an adolescent parent remains significant for later born

children of a teen mother. Further analyses confirmed that G2 children of teen G1 mothers were significantly more likely than children of non-teen G1 mothers to become teen parents (odds ratios of 1.69 compared to .58 respectively) (Hardy et al., 1998). In addition, Hardy et al. report that G2 children born to a G1 teen mother who did not become a teen parent were significantly more likely to become an early mother than G2 children born to older G1 mothers (odds ratios 4.43 and 1.00 respectively). These findings strongly support the hypothesis that patterns of timing of parenthood exist across generations for both males and females.

A study conducted by Manlove (1997) on a British Cohort explored intergenerational parenthood for females. She hypothesized that daughters of teenage mothers would be at an increased risk for becoming teenage mothers themselves. In addition, she proposed four mechanisms that might account for this association: the family environment, genetic contributions of age of menarche, educational context, and family formation preferences. The sample was drawn from a study conducted by the National Children's Bureau which began with 17,733 children born in 1958. Data were collected on these children at several intervals from parents, teachers, schools, healthcare professionals, and the children themselves. The second generation data were collected from 2,183 firstborn females and assessments extended until the age of 23. Teen births were those occurring before the mother's twentieth birthday and early births occurred before the twenty-third birthday (Manlove, 1997).

Manlove (1997) reports that daughters of teen mothers were much more likely to become teen mothers (20%) than daughters of non-teen mothers (8%) in this sample and

this risk continued to be significant through the age of 21. More specifically, daughters of teen mothers are 2.85 times more likely to become a mother up to the age of 21, at which time this risk decreases to 1.57 times as likely to become a parent (Manlove, 1997). The daughters of teen mothers were more likely to experience disadvantaged family environments including but not limited to single parenthood, economic distress, and limited maternal resources and interest in academics. In addition, daughters of teen mothers reported a preference for starting a family at an earlier age (Manlove, 1997).

The results of the Manlove (1997) study indicate that several family background variables serve as risk or protective factors for teenage motherhood. Relevant to the current study are the findings related to marital status. Daughters born to teen mothers outside of marriage are at an increased risk for becoming teen mothers. However, this risk decreases beginning at age 17 (Manlove, 1997). In contrast, living with both biological parents until the age of 11 reduces the risk for becoming a parent at any age to .69 times the risk. This finding suggests that both BTTP and single parenthood (by mother or father) exert influences on the risk for teenage parenthood. The variable considered in the Manlove (1997) study was not FA but rather single parenthood. However, it provides support for the study of the influence of FA on teenage parenthood in conjunction with BTTP. Manlove (1997) found that even after controlling for a variety of family background and academic variables, daughters born to teen mothers were 61% more likely to become mothers themselves before the age of 21. These findings suggest that BTTP is a risk factor for teenage parenthood even when considering single parent

status. However, this research also highlights the importance of examining BTTP and FA in relation to one another.

Kahn and Anderson (1992) reported similar findings in their study of white and black female participants between the ages of 20 and 44 in the National Survey of Family Growth, Cycle IV, from 1988. This study examined both parenting and marital trends across generations. Consistent with previous research, the findings suggest that being born to a teen parent significantly increases the risk for becoming a teen mother, with white teens being twice as likely and black teens being one-third more likely to become a teen mother than daughters of older mothers. The findings for the most recent cohort, consisting of women born between 1964 and 1968, report 40% and 90% of the teen births were out of wedlock for whites and blacks respectively (Kahn & Anderson, 1992). Kahn and Anderson (1992) control for a variety of variables including but not limited to religion, urban residence, age at menarche, mother's education, and family structure. Even after controlling for these variables, a significant intergenerational relationship persists for both whites and blacks. Kahn and Anderson (1992) examined the potential biological influence of teenage birth by examining the role of age of menarche as an influence on the outcome of teenage parenthood. However, by controlling for the age of menarche, the effect of intergenerational timing of parenthood was only marginally reduced. These findings suggest that teenage motherhood is transmitted across generations through the socialization of attitudes and preferences which promote early parenthood. Kahn and Anderson (1992) found that the intergenerational effect is reduced substantially, from 1.171 to .756 times as likely to have a teen birth for whites and from

.669 to .517 as likely to have a teen birth for blacks, by controlling for mother's education and family structure (both parents in the home). These results suggest that the intergenerational transmission of teenage parenthood can in part be attributed to family contextual influences such as socioeconomic status and father absence. However, because these family contextual influences were clustered together, it is not possible to examine the effects of SES versus family structure. The current study sought to address this issue by looking at BTTP and FA independently and together in their prediction of the outcome of adolescent parenthood.

As the previous studies suggest, family structure, and more specifically single parent status, is a second potential risk factor for adolescent parenthood, which is likely to co-occur with BTTP. In fact, Felice and the Committee on Adolescence (1998) report that in 1993 72% of teen parents were unmarried. In addition, Coley and Chase-Lansdale (1998) report that teenage mothers are more likely to divorce and experience a large number of their parenting years as single parents. However, not all teen births are to single mothers; approximately 20% of teen mothers marry before or soon following the birth of the child. Considering the statistics that cite the likelihood of these risk factors to co-occur, and the evidence provided by Manlove (1997) that single parenthood greatly reduced the influence of BTTP on the outcome of adolescent parenthood, it is important to consider the literature on FA. The next section will focus on the literature concerning the role of father absence as a risk factor for early sexual activity and adolescent pregnancy and childbearing.

Father Absence

Father absence is a risk factor for a number of sexual outcomes in adolescence including early entrance into sexual relationships, teenage pregnancy, and teenage parenthood (e.g., Coley & Chase-Lansdale, 1998; Ellis et al., 2003; Hardy et al., 1998; Manlove, 1997; Newcomber & Udry, 1987). Research suggests that similar to BTTP, children in father- absent homes are exposed to dating and sexual relationships outside of marriage and with multiple partners, which influence their own sexual behaviors.

Ellis and his colleagues (2003) explored this topic using data from the Child Development Project (CDP) in the United States, the same sample used in the current study, and the Christchurch Health and Development Study (CHDS) in New Zealand. Both samples are part of ongoing longitudinal studies. The sub-sample drawn from the CDP consisted of 242 girls assessed from the age of five to 17 approximately (Ellis et al., 2003). The adolescents completed the Adolescent Behavior Questionnaire in Year 10-13 (14-17 years) and answered questions about sexual activity and pregnancy. Early sexual experience was defined as intercourse before age 16. Father absence was assessed in Years 1-10 (5-13 years) and broken into a dichotomous rating of early onset, before age five, and late onset, between 6 and 13 years (Ellis et al., 2003). The current study expanded the sub-sample utilized by Ellis et al. (2003) by including males, looking at parenthood as opposed to pregnancy and looking at this sample through their twentieth birthday. The sub-sample of the CHDS examined in this study consisted of 520 females who have been studied from birth through their 21st birthdays. Adolescents in the CHDS completed similar questionnaires from age 14-16 to assess for sexual activity and

pregnancy. Father absence was also assessed employing the same system as the CDP (Ellis et al., 2003).

The findings suggest a strong relationship between father absence and early sexual activity and pregnancy, with the early father-absent girls being 7 times more likely in the U.S. sample and 8 times more likely in the New Zealand sample to become pregnant than the father-present girls. The findings expand current understandings of the effect of father absence by examining the relationships in response to earlier and later absence as well as father presence, suggesting that early onset of father absence is especially salient in the risk process associated with early sexual experiences and teen pregnancy. FA continued to be significantly and strongly related to these early sexual experiences, even after taking into account a number of control variables (e.g., externalizing behaviors, SES, mother's age at first birth). The current study built on Ellis et al. (2003) by considering FA in relation to BBTP, by considering teen parenthood as an outcome, for both boys and girls, across the teen years, and by (as discussed below) examining social-experiential factors that may strengthen (risk-amplification) or weaken (risk-buffering) the relation between FA and teen parenthood.

Quinlan (2003) also conducted a study examining the role of the timing of father absence (FA); however, he assessed the relationship between FA and female reproductive development, including age of menarche, timing of sexual intercourse and pregnancy. The sample was drawn from the National Survey of Family Growth (NSFG) in 1995 and included 10,847 women between the ages of 15 and 44. Variables included age at menarche, first voluntary coitus, and first pregnancy. FA was examined in relation to the

timing of separation, the number of transitions experienced (i.e., remarriage and separation), and stepparent status. Potential confounding variables such as SES and mother's age at first birth were controlled for in the analyses.

The results relevant to the current study suggest a powerful influence of FA on reproductive development, with girls who experienced FA before the age of six being twice as likely to experience early menarche, more than four times as likely to experience early sexual intercourse, and two and a half times as likely to experience an early pregnancy when compared to females from dual parent homes. In addition, the risk for early reproductive development decreased in conjunction with the amount of time the girls spent in intact households. These findings suggest that there is a significant relationship between FA and females reproductive development, including initiation of sexual intercourse and pregnancy in adolescence, such that FA increases the likelihood of females experiencing sex and pregnancy during their teen years.

Newcomber and Udry (1987) report similar findings in a study examining the role of parental marital status on adolescent sexual behavior and, more specifically, initiation of coitus. Participants for the study were recruited from junior high schools in a Southern city and included 501 white, virgin, teenagers who lived in two-parent, step-parent or single parent households. Data were collected at two times, T1 in 1980 and T2 in 1982. Parents reported marital status and adolescents reported coitus.

Results suggest that parental marital status affects transition to coitus differently for boys and girls. Girls living in stable single parent households were three times more likely to transition to coitus across the two year time span when compared to girls in

stable two parent households. In contrast, boys who experienced a transition from two parent households to single parent households were significantly more likely to engage in sexual intercourse across the time span when compared to stable single and two parent households (odds ration of more than 5). Newcomber and Udry (1987) argue that the impact of parental marital status is different for boys and girls, such that girls are affected by the single parent experience and boys are affected by the transition to single parent status. Further analyses compared the teen's sexual attitudes and subjective expected utility (SEU) from coitus of the teens at T1. Results suggest that girls in FA homes expressed more permissive attitudes about sex and higher SEU scores when compared to girls in two parent households. However, parental marital status maintained significance when controlling for attitudes and SEU.

Researchers have consistently found significant relationships between FA and adolescent sexual outcomes, such as initiation of coitus and pregnancy (e.g. Ellis et al., 2003; Newcomber & Udry, 1987; Quinlan, 2003). These findings suggest that experiencing FA early in life is a risk factor for early entrance into sexual relationships and pregnancy for female adolescents. There are a limited number of studies exploring the potential risk associated with FA and risky sexual outcomes for male adolescents. The ensuing literature review will explore the existing research on adolescent fatherhood.

Adolescent Fatherhood

The majority of the research on adolescent parenthood has focused on the risks associated with teenage motherhood; however, there is some research that explores the pathways to adolescent fatherhood. Among this research is a study conducted by Jaffee and her colleagues (2001) which examines risk factors for early fatherhood, in addition to looking at father residence, and how it affects the child. The sub-sample taken from the Dunedin Multidisciplinary Health and Development Study consisted of 499 males, birth through age 26. Family factors assessed included having a teen mother, parental crimes/violence, SES, family conflict, single parenting, harsh and inconsistent discipline and quality of parent/child relationship. In addition, adolescent self report measures assessed sexual activity, behavioral problems, depression, school dropout and reading achievement scores (Jaffee, Caspi, Moffitt, Taylor, & Dickson, 2001). Results indicate that having a teen mother, single parent, behavior problems, academic difficulties and early sexual activity increased the likelihood of becoming a teen father (Jaffee et al., 2001). These findings are similar to those noted for female adolescents.

A study by Thornberry and Smith (1997), which focused on early fatherhood, reports similar findings. Thornberry and Smith (1997) examined 615 adolescent males as part of the Rochester Youth Development Study for seven years beginning in the seventh grade. Self report and parent report on several questionnaires assessed a variety of risk domains ranging from SES and family structure to neighborhood violence to academic achievement and early sexual activity. Analysis at the bivariate level showed no significant relationship between teen fatherhood and single parent households, parental

depression, family violence, self-esteem and school and religious commitment. However, the analysis did show a relationship between race, having a teen parent and deviant behaviors (i.e. drug use, early sexual activity) as would be expected (Thornberry & Smith, 1997). A cumulative risk analysis revealed a significant relationship between the multiplicity of risk factors and the occurrence of teen fatherhood. These findings suggest that experiencing multiple risks increases the likelihood of teen fatherhood (Thornberry & Smith, 1997). Research on adolescent motherhood has supported a cumulative risk hypothesis, which is consistent with the findings of Thornberry and Smith (1997).

Fagot and her colleagues (1998) employed the family coercion model in their examination of risk for adolescent fatherhood. The family coercion model, developed by Patterson, suggests that parents model antisocial behaviors for their children and fail to model prosocial behavior, resulting in learned deviance and a lack of social skills in the children (Fagot et al., 1998). 206 boys participating in the Oregon Youth Study (OYS) comprised the sample for the study conducted by Fagot and her colleagues (1998) aimed at assessing the precursors to adolescent fatherhood. Of this original sample 35 participants fathered a total of 45 children prior to turning 20 years old. The adolescent fathers and non fathers within the sample were compared to assess the possible predictors for becoming a teen father.

The risk factors associated with becoming a teen father included low SES, lack of parental discipline, low academic achievement, affiliation with deviant peers and antisocial behavior. These finding are consistent with the family coercion model

proposed, such that boys at risk for becoming adolescent fathers experienced a variety of deviant or coercive risks during adolescence.

Even though there are a limited number of studies exploring adolescent fatherhood, the preliminary findings suggest similar risks are associated with teen fatherhood and motherhood. However, the impact of FA as a risk factor for adolescent parenthood may be stronger for boys than for girls, as suggested by Newcomber and Udry (1987) who found that the state of single parenthood affected adolescent girls' transition to first coitus and not boys. Further research on adolescent fatherhood is essential to provide a more complete understanding of these risks. However, it is difficult to address adolescent fatherhood in research do to the low base rate of its occurrence, which may result from adolescent males fathering children without their knowledge (Thornberry & Smith, 1997). In addition, the majority of teen mothers are impregnated by older males as opposed to adolescents. The current study sought to address this research gap by examining the role of FA and BTTP in predicting risk for adolescent parenthood in an exploratory fashion. Although the current study consists of a large community sample with a substantial N, the number of boys likely to become teen parents is relatively small. As a result of the small sub-sample of male, adolescent parents within the current sample, the analyses concerning gender in relation to FA, BTTP and teen parenthood remained exploratory in nature.

Socioeconomic Status

The literature on adolescent pregnancy and parenthood has identified SES as a risk factor associated with these problematic outcomes (Coley & Chase Lansdale, 1998, Corcoran et al., 2000; Gest et al., 1999; Thornberry & Smith, 1997). Findings suggest that children who are raised in lower socioeconomic strata are at a heightened risk for becoming a teen parent when compared to children raised with greater economic resources. For example, Corcoran and colleagues (2000) found that SES was a significant predictor of teenage parenthood (odds ratio= .7). However, in their analyses not all proxy measures of SES (i.e. parental occupation) produced significant findings. Corcoran et al. (2000) suggest that SES is a powerful predictor of adolescent parenthood; however, the pathways through which this influence is exerted may vary. For example, low SES may influence teen parenthood by limiting financial resources including adequate medical care and access to birth control. Another potential pathway to adolescent parenthood for low income youth suggests that delaying parenthood may not pose the same advantages due to the limited educational and career opportunities available. Thus, Corcoran and colleagues (2000) suggest that SES is a potent risk factor for adolescent parenthood, but this influence is complex.

The current study sought to examine the role that SES plays as a potential additive risk for adolescent parenthood once FA and BTTP have been considered. Newcombe (2003) suggests that by controlling for intimately related variables researchers may be producing misleading results. In the current study, SES and the principal risk factors of FA and BTTP are closely related. As previously suggested, single parent and teen parent

households are more likely to experience economic distress as a result of limited financial, education and employment resources (Ellis et al., 2003; Moore, 1993). As suggested by Newcombe (2003), controlling for SES in this study may produce an inaccurate picture of the relationship between FA, BTTP and teen parenthood. Gray and Steinberg (1999) argue that by controlling for SES and the potential confounding variables associated with SES researchers introduce another set of unknown confounding variables. The current study sought to examine the role of SES in the pathway to adolescent parenthood; however, the study examined SES as a potential additive risk for teen parenthood once FA and BTTP had been considered in order to reduce the likelihood of producing inaccurate results as suggested by Gray and Steinberg (1999) and Newcombe (2003).

Parental Monitoring and Antisocial Peers as Moderators of the Link Between Early Risk Factors and Adolescent Parenthood

FA and BTTP have been identified as risk factors for adolescent parenthood; however, not all teens who experience BTTP and/or FA become adolescent parents. There are other risk and protective factors that could moderate the relationship between BTTP and FA and adolescent parenthood, either amplifying or attenuating the risk for becoming a teen parent. Risk amplifiers interact with other risk factors to increase the likelihood of a given outcome. In contrast, protective factors act as a buffer between the risk and outcome, attenuating the risk. The moderators of particular interest in the current study were parental monitoring and affiliation with antisocial peers.

Dodge and Pettit (2003) describe a biopsychosocial model of the development of conduct problems in adolescence. This model posits that children can be born into sociocultural contexts that set them on a pathway of risk for negative developmental outcomes in adolescence, FA and BTTP can be construed as two such risks. This developmental pathway is affected by a number of subsequent parenting, peer and transition experiences. Dodge and Pettit (2003) suggest that in early adolescence, children exposed to these early risk factors may begin to associate with antisocial peers and may experience a lack of parental monitoring, which may intensify the negative influences of these peer networks, and compromise their prosocial skill development. Thus, through parenting (monitoring) and peer (affiliation with antisocial peers) experiences, the initial risk experienced (FA and/or BTTP) is exacerbated.

Kotchick, Shaffer, Forehand, and Miller (2001) examine the development of sexual risk taking behaviors in adolescence more specifically. A multisystemic approach was employed in the examination of the development of risky sexual behaviors. Although adolescent parenthood and sexual risk taking are not the same constructs, increased levels of sexual risk taking are associated with increased risk for adolescent parenthood (Kotchick et al., 2001).

Parenting behaviors and family processes have been shown to influence adolescents' sexual behaviors. Kotchick et al. (2001) suggest that parents directly influence adolescent sexual development by monitoring adolescent behaviors, such that high levels of parental monitoring are associated with less sexual activity in adolescence. In the social setting, peers are instrumental in the development of sexuality and model

and reinforce sexual behaviors, influencing sexual risk taking. The peer group has the potential to influence sexual risk taking and findings suggest that affiliation with deviant peers is correlated with increased levels of high-risk sexual behaviors (Kotchick et al., 2001). Thus, evidence suggests that not only do parental monitoring and affiliation with antisocial peers have the potential to influence the development of conduct problems in adolescence but more specifically to impact on adolescent sexual risk taking behaviors as well. The following literature review will explore previous research exploring the impact of parental monitoring and affiliation with antisocial peers on adolescent problem and sexual risk taking behaviors and their potential roles as moderators on these outcomes.

Parental Monitoring

Parental monitoring has been linked to decreased levels of problematic behaviors, such as delinquent behavior, drug use, academic difficulties, affiliation with deviant peers and risky sexual behaviors (e.g., Crouter & Head, 2002; Dishion & McMahon, 1998). Parental monitoring is construed as an activity through which parents seek and obtain information about their children. However, the measurement of parental monitoring most often represents parents' general knowledge of their children's whereabouts, activities, and friends (Pettit et al., 1999). Evidence suggests that this knowledge is typically acquired through adolescents self disclosure with their parents (e.g. Kerr & Stattin, 2000). Dishion and McMahon (1998) among many other empirical studies (e.g., Crouter & Head, 2002; Pettit et al., 1999) suggest that parents' knowledge and management of their children's whereabouts may positively influence children's adjustment. In contrast, insufficient monitoring and knowledge may amplify the risk for adjustment problems. In

several studies using data from the CDP, lack of parental monitoring has been found to be associated with a variety of antisocial behavioral outcomes (Laird et al., 2003; Pettit et al., 2001; Pettit & Laird, 2002).

Research directly concerned with links between parental monitoring and adolescent sexual behavior is sparse, but generally monitoring has been found to be associated with reduced risk for teen pregnancy and teen parenthood. Consistent with a life-course developmental perspective, Whitbeck et al. (1999) propose that not only family characteristics but also the timing of transitions and experiences influence adolescent behavioral characteristics. It is hypothesized that significant relationships will exist between risk variables, including family characteristics, and early sexuality but that their influence will begin to decline in the 10^{th} grade when sexuality approaches a more normative experience and no longer represents deviant behavior. 457 adolescents from 8^{th} through 10^{th} grade from single parent and intact families participated in the study. Mothers reported monitoring on a six item scale assessing their daily knowledge of their children's whereabouts, activities and companions. Adolescents reported whether or not they had engaged in sexual intercourse in the previous year. Findings indicate that higher levels of monitoring was associated with decreases in the likelihood of adolescents engaging in intercourse in the 8^{th} and 9^{th} grades, but an increase in the likelihood of intercourse in the 10^{th} grade. Whitbeck and colleagues suggest that mothers' influence on sexual outcomes may decrease with age.

Huebner and Howell (2003) report similar findings in their examination of the relationship between parental monitoring and sexual risk taking behaviors. 2701 seventh

through twelfth graders participated in the study and responded to questions regarding their perceptions of their parents' monitoring (6 items) and sexual risk taking behaviors (number of sexual partners and condom use) among other items. Only the 1160 students who reported engaging in sexual intercourse were included in the analyses. Adolescents were grouped into low versus high sexual risk depending upon their use of contraceptives and number of sexual partners. Findings indicate a significant relationship between parental monitoring and sexual risk such that a decrease of one unit in parental monitoring multiplied the risk for engaging in high sexual risk behaviors by .41 (Huebner & Howell, 2003).

Rail and colleagues (2003) examined the association between parental monitoring and peer involvement and several forms of adolescent risk behavior. This study analyzed six data sets which included predominantly African American adolescents between the ages of 13 and 16 in urban areas. All participants were recruited from high risk environments who were involved in studies focused on risk assessment and reduction. Adolescents completed the Parental Monitoring Scale and reported on six items their perceptions of their parents' knowledge of their whereabouts, activities and friends. Participants also reported the risk involvement of their peers for sexual, alcohol and drug related behaviors. Lastly participants reported their own risky behaviors including sexual intercourse, condom use, violence and alcohol and drug use. Results indicate that perceived parental monitoring is negatively associated with risk behavior and serves as a protective factor for risk behavior (odds ratio < 1). Relevant to the current study, parental monitoring was associated with increased condom use in three of the data sets and

delayed sexual initiation in two data sets. This study demonstrates the potential protective role that parental monitoring can play in reducing the likelihood of adolescent problem behaviors, and more specifically in reducing risky sexual behaviors.

The current study sought to examine the role of parental monitoring as a protective factor mitigating the risk of FA and BTTP for adolescent parenthood. Research examining the role of parental monitoring as a moderator of adolescent problem behaviors and more specifically sexual risk taking behaviors is sparse. However, a discussion of the limited literature on the role of parental monitoring as a moderator follows.

Pettit et al. (1999) looked at the potential moderating influence of parental monitoring on the link between unsupervised peer contact and externalizing problems. Utilizing the same sample as the proposed study, adolescent report of parental monitoring and after school time use as well as teacher report of externalizing behaviors were collected. Results indicate that parental monitoring moderates the relationship between unsupervised peer contact as well as living in an unsafe neighborhood and externalizing behaviors. More specifically, parental monitoring attenuates the risk associated with unsupervised peer contact thereby reducing externalizing behaviors as reported by teachers. This study highlights the potential role of monitoring to reduce the impact of a risk factor on a given problematic outcome.

Parental monitoring has been linked with reducing problematic behavioral outcomes, including sexual intercourse, delinquency and externalizing behaviors (e.g. Pettit et al., 1999; Whitbeck et al., 1999). However, other experiences in early

adolescence can influence outcomes increasing problematic behaviors. As suggested by Dodge and Pettit (2003), affiliation with antisocial peers decreases children's ability to attain valuable prosocial skills while increasing the likelihood of experiencing problematic behavioral outcomes. A review of the literature on affiliation with antisocial peers follows.

Affiliation with Antisocial Peers

Forehand and Wierson (1993) suggest that peer influences strengthen during adolescence. The findings reported by Whitbeck et al. (1999) suggest the influence of mothers' monitoring decreased in the 10th grade. It seems that peer relationships become more salient during adolescence, when teens spend more time with one another than with their parents. Corcoran, Franklin and Benson (2000) suggest that peers are an essential component of teens social support networks, advising one another on appropriate behaviors and choices. Thus, the potential influence of deviant peer groups can be potent in the development of problem behaviors during adolescence.

Laird and colleagues (2001) examined peer rejection during elementary school, affiliation with antisocial peers in adolescence and externalizing problems, using the same sample as the proposed study. Peer rejection data were collected during sociometric interviews. Following the same protocol as the proposed study, affiliation with antisocial peers at the dyadic and group level was assessed. Parents, teachers and adolescents reported externalizing behaviors using a variety of self report questionnaires (e.g. Youth Self Report of the Child Behavior Checklist) and assess behaviors like delinquency and aggression.

Results relevant to the current study suggest that peer influences are associated with the development of externalizing problems through multiple pathways. The findings support the hypothesis that early rejection predicts affiliation with antisocial peers which in turn predicts externalizing problems. Thus, a significant relationship is established between antisocial peer relationships and problematic behavior in adolescence. In addition, the results suggest that children who experience higher levels of externalizing problems across time are more likely to affiliate with antisocial peers. These findings support the hypothesis that peer relationships have the potential to influence adolescent behavior, and affiliation with antisocial peers can influence the development of problematic behaviors such as aggression and delinquency. Whitbeck and colleagues (1999) look at the association between peer influences and the development of sexual behaviors.

In the study previously discussed, Whitbeck et al. (1999) examined adolescents' development of sexual behaviors. Among the variables assessed, affiliation with deviant peers was measured with a 17 item scale consisting of questions about the activities and behaviors of the adolescents' close friends. A prosocial peer measure was employed to assess the positive influences of peers. 7 items comprised the prosocial peer involvement measure and included questions about the importance of a variety of positive behaviors like college, good grades and avoidance of alcohol and drugs. Sexual activity was reported by the adolescent.

Main effects were found for both prosocial and antisocial peer involvement. These findings indicated that prosocial peer aspirations was negatively correlated with

early sexual activity (β= -.11). Delinquent peer affiliation was strongly associated with early sexual activity (β= 1.03). Further analyses were conducted controlling for family structure, pubertal development, gender, and grade level. Affiliation with antisocial peers remained a significant predictor of sexual activity above and beyond the control variables (β= .47). Adolescents who associated with deviant peers were 1.6 times more likely to engage in early sexual intercourse when compared to adolescents not involved with deviant peers. Whitbeck et al. (1999) draws attention to the link between antisocial peer involvement and problematic sexual outcomes.

Rail and colleagues (2003) also examined the role of peer influences on a variety of problematic adolescent behaviors, including sexual behaviors (engagement in sexual intercourse and condom use). Results indicate a strong positive relationship between peer risk involvement and actual risk behaviors such that adolescents who had a high perceived peer involvement in a given behavior were more likely themselves to participate in that behavior (odds ratios 1.17 to 2.5). Findings most relevant to the cuurent study assess perceptions surrounding sexual activity and condom use. Adolescents who perceived that most of their friends were sexually active had a predicted probability of .7 of being sexually active themselves. In addition, in the four cohorts containing condom use data there was a significant positive association between perceived peer condom use and actual condom use. In this study peers were highly likely to exhibit similar behaviors, especial concerning sexual matters, as those of their peers, suggesting a strong potential influence of the peer group.

Scaramella, Conger, Simons, and Whitbeck (1998) examined the role of deviant peer groups in their attempt to identify potential social contextual pathways to adolescent parenthood. The model proposes a pathway in which parental warmth and involvement moderate children's deviant peer relationships and academic achievements, which in turn affect risky behaviors such as teenage pregnancy (Scaramella et al., 1998). The 368 adolescents were part of the Iowa Youth and Family Project, a longitudinal study evaluating the adolescents annually for seven years beginning when the child was in the seventh grade. The rural sample has very few minority participants but does have a wide range of SES represented. The participants completed self report questionnaires, videotaped interaction activities and participated in two home interviews (Scaramella et al., 1998). Parental warmth and involvement were rated according to the videotaped interaction sequences. Eighth grade self report questionnaires were used to score deviant peer relationships, and academic competence. Risky behaviors were assessed through ninth and tenth grade self-report of delinquency and substance abuse. Pregnancy status was attained in ninth and twelfth grades (Scaramella et al., 1998).

The results proposed two social contextual pathways that either promote or hinder adolescent pregnancy. One pathway proposes that a deviant adolescent engages in conflicted relationships at home, identifies with a deviant peer group and engages in risky behaviors. Thus, teenage pregnancy is the result of risky sexual behaviors (Scaramella et al., 1998). The alternate pathway begins with warm and supportive parenting, which encourages academic achievement and success and limits affiliation with deviant peer groups through monitoring. In this pathway the adolescent recognizes the risks associated

with sexual activity and either takes precautions or delays engagement in such activities thereby reducing the risk for teenage pregnancy (Scaramella et al., 1998). These findings suggest that the association between affiliating with deviant peers and adolescent pregnancy is mediated by risk taking behavior. Thus, it is the risky behaviors that deviant peer groups engage in which increases the likelihood of becoming a teen parent. This study also highlights the important association between deviant peer groups and problematic outcomes in adolescence and more specifically teen pregnancy.

Research suggests that the influences of peers play a pivotal role in adolescent development of delinquent, aggressive and problematic sexual behaviors (e.g. Laird et al., 2001; Whitbeck et al., 1999). The current study sought to examine the potential role of affiliation with antisocial peers as a moderator amplifying the risk for adolescent parenthood once FA and BTTP have been considered. No study could be located that explicitly tested antisocial peer involvement as a moderator (amplifier) of earlier risk factors. However, Pettit et al. (1999) found that unsupervised after-school activity with peers, interacted with, and increased the risk of, living in an unsafe neighborhood for developing externalizing problems during adolescence. Although unsupervised peer activity is not identical to antisocial peer involvement, it might carry some of the same risk. Given the unsupervised peer contact findings and previous research findings linking affiliation with antisocial peers with a variety of problem behaviors and teen pregnancy, it seems logical that deviant peer relationships could exacerbate the risk for teen parenthood once FA and BTTP have been considered. It was a goal of the current study

to examine the potential risk amplifying association between affiliation with antisocial peers and adolescent parenthood.

In summary, the current study sought to expand the literature on adolescent parenthood by examining the association between FA and BTTP and teen parenthood for male and female adolescents participating in the CDP. Current literature suggests that FA and BTTP are potent predictors of teen pregnancy and parenthood (e.g., Ellis et al., 2003; Hardy et al., 1998; Manlove, 1997; Quinlan, 2003). In addition, the limited research on adolescent fatherhood suggests that risk for parenthood during the teen years is similar for males and females (e.g., Fagot et al., 1998; Thornberry et al., 1997). Finally, research suggests that parental monitoring and affiliation with antisocial peers are two variables associated with problematic adolescent behaviors including sexual risk taking behaviors (e.g., Laird et al., 2001; Pettit et al., 1999; Whitbeck et al., 1999).

The following specific research questions and hypotheses were addressed:

1. The current study sought to examine the relationship between FA and BTTP and adolescent parenthood. It was hypothesized that FA and BTTP would be significantly related to teen parenthood. Furthermore it was expected that FA and BTTP would predict teen parenthood independent of one another.
2. In addition, SES was examined as a risk factor for adolescent parenthood once FA and BTTP have been considered. It was expected that SES would continue to predict teen parenthood as an additive risk once FA and BTTP have been considered.

3. For exploratory purposes, sex differences were examined in the association between FA and BTTP and teen parenthood. It was hypothesized that risk would operate similarly for males and females.
4. Finally, parental monitoring and affiliation with antisocial peers were examined as potential moderators of the association between FA and BTTP and adolescent parenthood. Parental monitoring was expected to attenuate the risk for teen parenthood and affiliation with antisocial peers was expected to amplify the risk.

III. METHOD

Sample and Overview

The data for the current study were collected as part of the Child Development Project, a multi-site, longitudinal study that explores children's social and emotional development (Dodge, Bates, & Pettit, 1990; Pettit et al., 1999). The majority of the participants (85%) were recruited at pre-registration for kindergarten during two consecutive years (1987 and 1988) in three sites: Knoxville and Nashville, Tennessee and Bloomington, Indiana. A small percentage of participants (15%) were recruited at the schools during registration at the onset of the school year. Parents were recruited by research assistants and asked to participate in the longitudinal project that focused on child development. The sample was diverse with respect to sex (52% male), ethnicity (80% European-American, 18% African American, 2% other ethnic groups), and socioeconomic status (Hollingshead [1975]) index of socioeconomic status mean = 40, SD = 14, range = 8 – 66, with 9%, 17%, 25%, 33%, and 16% in Hollingshead's five classes (from lowest to highest).

During the initial assessment, the summer prior to kindergarten, 585 families participated in detailed interviews. At this time, family background information was collected. Follow-up assessments were completed annually from kindergarten forward. During these follow-up assessments participants and their mothers completed

questionnaires and interviews. In addition, face-to-face interviews with both the mother and the teens were conducted.

Through data collection year 16, when the participants were age 21, approximately 80% of the original sample continued in the study. Affiliation with antisocial peers data were collected for 429 participants (73% of the original sample). Parental monitoring data were collected for 465 participants (79%). Teen parent data were collected for 503 participants (87%). Of the original 585 participants, 370 participants (67%) were in father present homes and 180 participants (33%) were in father absent homes, and 134 participants were born to a teen mother (24%) compared to 433 participants (76%) born to mothers older than 20. The mean level of SES was 40.7 for the remaining participants. In addition, the mean for the parental monitoring scores of these participants was 4.60 and for the affiliation with antisocial peers measure was 1.82. Of the 503 participants for whom teen parent data were collected, 12% (58 participants) became teen parents, which is comparable to nationwide statistics (e.g., Singh & Darroch, 2001). Analyses were run to compare the FA, BTTP, and SES levels of the participants for whom teen parent data were collected with those for whom no data was available. Findings indicate a significant difference between the two groups for all variables, suggesting that those participants who dropped out of the study were more likely to come from FA homes, be born to a teen mom, and experience lower SES.

Procedure

During the initial pre-kindergarten family interview two researchers visited the homes of the participants and one interviewed the child while the other interviewed the

mother and father, when available. If both parents were present, one parent participated in the interview while the other completed questionnaires. The interview was conducted by a trained interviewer and consisted of both open ended and structured questions (for further details on the interview procedures and content see Pettit, Bates, and Dodge, 1997). Demographic data, including SES, ethnicity, and family structure presented in the proposed study were collected during this initial assessment.

When the participants were in the 6th grade mothers participated in a 90-minute in-home interview. Several items aimed at assessing parental monitoring were embedded within this interview. This interview assessed after school care (see Pettit et al., 1997) as well as parenting and neighborhood characteristics and family life and transitions.

In the seventh grade, participants were contacted and asked to participate in structured interviews. Questions assessing the adolescents' affiliation with antisocial peers were embedded within the interview assessing peer relationships (see Laird et al., 1999). Parents completed a measure of children's problem behavior each summer.

In subsequent annual assessments adolescents responded to a question regarding whether or not they had become parents. Data were collected through questionnaires or interviews.

Measures

Father Absence. During the initial assessment mothers reported the presence or absence of the participant's biological or adoptive father in the home. A dichotomous variable was created for father absence or presence in Year 1 of the study.

Being Born to a Teen Parent. Similar to father absence, a dichotomous variable was created, based upon mother-reported information during the initial interview. Mothers reported their birthdates as well as the birthdates of their children during the initial assessment. The mother's age at the birth of her first child (either the target participant or the oldest sibling of the target participant) was calculated by subtracting the mother's birth year from her first child's birth year. In the event that the child was born in a month prior to the mother's birth month, one was subtracted from the calculated age. Participants whose mothers were younger than 20 years of age at the birth of their first child were coded as born to a teen parent.

Teen parent. In Year 15 and 16 of data collection participants reported the sex and birthdates of their children. Following the same procedure used to calculate the age of participants' mothers at the birth of their first child, participants' birth year was subtracted from the birth year of their first child. Again, the birth month was accounted for when necessary. Those participants who were less than twenty years old at the time of the birth of their first child were coded teen parents.

Parental monitoring. A series of questions embedded in the mother interview conducted during the summer prior to the sixth grade assessed parental monitoring and supervision. Some of these items were adapted from existing measures (e.g., Capaldi & Patterson, 1991). Each of the items attempted to assess the parents' general awareness their children's whereabouts, activities and friendships. The mothers were read the series of questions and asked to respond orally or by pointing to the rating cards using a 5-point scale with cue cards for the rating scales. Some of the items included, "When your child

is not at home, do you know where he/she is?" and "How often do you talk with your child about what he/she does with his/her friends when he/she is away from home?"

A 9 item composite scale was created to assess parental monitoring. The alpha internal consistency for this scale was .69.

Affiliation with antisocial peers. Affiliation with antisocial peers was assessed for both dyadic and group relationships. Adolescents were asked to respond to five questions regarding their best friend's antisocial behavior (see Dishion, Patterson, Stoolmiller, & Skinner, 1991). Adolescents responded to the items (i.e., "alcohol," "drug use," "smoking," "fighting," and "theft") using a three-point scale (*not, true, somewhat/sometimes true, very/often true).* The mean rating for these five items was computed as the friend antisocial behavior score (alpha internal consistency = .69).

Participants who reported belonging to a group of friends (i.e., those who reported spending more time in a group of friends as opposed to in isolation or with a best friend) were presented with similar items to complete for their group members. These items were the same as those used in the best friend assessment; however, the wording was changed to assess the friendship group members (i.e., "my friend" was replaced with "the members of my group"). The participant responded to these items using a five-point scale (*never, once in a while, sometimes, fairly often, very often).* The mean score across the five items was calculated to represent an antisocial group behavior score (alpha internal consistency = .74). The friend and group antisocial scores were significantly correlated ($r = -.142, p < .01$) and standardized and averaged to form an overall peer antisocial

behavior score. For those participants who did not report belonging to a peer group their score is represented by the dyadic measurement alone.

IV. RESULTS

Results are presented in six sections. First, descriptive statistics are presented for all study variables, followed by bivariate correlations. Of special interest are links between father absence, being born to a teen parent, and teen parenthood. Associations between parental monitoring and affiliation with antisocial peers and adolescent parenthood are also reported. Third, regression analyses were conducted to examine the role of father absence and being born to a teen parent in predicting the outcome of teen parenthood. Fourth, differences in associations between father absence, being born to a teen parent, and teen parenthood as a function of gender are examined in moderated regression analyses. Fifth, the extent to which SES is predictive of adolescent parenthood, after considering father absence and being born to a teen parent, was evaluated in a series of hierarchical regression analyses. Finally, a series of moderated regression analyses evaluated the extent to which parental monitoring serves as a protective factor and affiliation with antisocial peers serves as a risk amplifier for at-risk adolescents. Interactions between father absence and being born to a teen parent and each moderator were entered following the main effects, with appropriate follow-up tests when the interaction terms were significant.

Descriptive Statistics

Percent breakdowns for the incidence of FA and BTTP and a breakdown of the multiplicity of these risk factors for both the participants who became teen parents and

those who did not are presented in Table 1. A comparison of the incidence of risk factors is presented in Table 2 for males and females. Means, standard deviations, and ranges for levels of father absence, being born to a teen parent, SES, parental monitoring, affiliation with antisocial peers, and adolescent parenthood are presented in Table 3. It will be recalled that measures of father absence, being born to a teen parent, and SES data were collected in Year 1, when participants were entering kindergarten. Parental monitoring data were collected in Year 7, as reported by mothers in the parent interview. Data on affiliation with antisocial peers were collected in Year 8, as reported by participants. Finally, teen parent data were collected in Years 15 and 16, when participants were approximately 20 to 21 years old.

Breakdowns comparing the incidence of risk factors for those participants who became teen parents and those who did not become a parent before their twentieth birthday are shown in Table 1. Of those participants who subsequently became adolescent parents, 50% (27 participants) experienced early father absence whereas only 28% of participants who did not become teen parents (118 participants) experienced early father absence. Of those participants who later became a teen parent, 38% (22 participants) had mothers who themselves had been a teen parent, whereas 62% (36 participants) had mothers who had not become a parent during their teen years.

Considering FA and BTTP together, 58% of the participants experienced neither of the risks of interest, FA nor BTTP, 30% experienced either FA or BTTP, and 12% experienced both FA and BTTP. When comparing participants who became teen parents

to those that did not, 31% versus 63% experienced no risk, 49% versus 26% experienced one risk, and 20% versus 11% experienced both risks as can be seen in Table 1.

Breakdowns by gender were also conducted and are presented in Table 2. Of the participants who became teen parents 24% ($N = 14$) were male compared to 76% ($N = 44$) female. Another way of looking at these data is that only 6% of males in the study became teen parents in contrast to 18% of females becoming teen mothers. The incidence of BTTP was similar for males and females with 22% of males and 25% of females being born to a teen parent. 30% of males and 36% of females experienced FA. When examining the combined risk of FA and BTTP, 31% of males and 34% of females experienced FA or BTTP and 11% of males and 14% of females experienced both FA and BTTP.

SES scores ranged from 8 to 66 with a mean of 39.5 on the Hollingshead Index, indicating a predominately middle class sample. However, a wide range of statuses was represented, with 9%, 17%, 25%, 33%, and 16% of the families classified into the five possible classes (from lowest to highest) recommended by Hollingshead (1975). Monitoring scores ranged from 3 to 5 with a mean of 4.6, indicating that parents generally judged themselves to be knowledgeable about there children's friends, activities and whereabouts. Affiliation with antisocial peer scores ranged from 1 to 4.4 with a mean of .67 suggesting that adolescents participating in the study generally rated their friends to be low in antisocial behavior.

Intercorrelations Among Measures

Bivariate correlations among all variables are listed in Table 4.

Father absence and adolescent parenthood. Consistent with the percentage breakdowns described earlier, father absence was associated modestly but significantly with adolescent parenthood.

Being born to a teen parent and adolescent parenthood. Also consistent with the earlier percentage breakdowns, being born to a teen parent was significantly associated with adolescent parenthood.

Associations involving co-variates. Correlations among father absence, being born to a teen parent, SES, parental monitoring, and affiliation with antisocial peers also are shown in Table 4. Participants from father absent homes were also likely to have been born to a teen parent, as noted earlier. Both risk factors were associated with lower SES, less parental monitoring, and more affiliation with antisocial peers. Higher SES was associated with more parental monitoring and lower antisocial peer affiliation. Mothers of girls reported higher levels of parental monitoring. Also, as mentioned earlier, girls were more likely to become teen parents.

Father Absence and Being Born to a Teen Parent as Predictors

Regression analyses were conducted to examine whether FA and BTTP were associated with the outcome of adolescent parenthood. Findings are reported in Table 3. In the first analysis (top portion of Table 5), FA was entered in step 1 and BTTP was entered in step 2, to determine if BTTP continued to predict the outcome of teen parenthood when controlling for FA.

As shown in Table 5, after controlling for FA, BTTP was a modest but significant independent predictor of adolescent parenthood, explaining 1% of the unique variance. A

second analysis was then conducted, with BTTP entered in step 1 and FA in step 2, to determine if FA continued to predict teen parenthood when controlling for BTTP. As shown in the middle portion of Table 5, after controlling for BTTP, FA continued to predict adolescent parenthood, explaining 1% of the unique variance. Thus, FA continues to be a significant predictor of adolescent parenthood after controlling for BTTP.

SES as an Additive Influence on Adolescent Parenthood

A second set of analyses explored the possible predictive link between SES and adolescent parenthood. Regression analyses were conducted to determine if SES continued to predict adolescent parenthood once FA and BTTP had been considered. As shown in the bottom portion of Table 5, SES significantly predicted teen parenthood after controlling for FA and BTTP, explaining 6% of the unique variance. It can also be seen (final step β column) that the previously significant FA and BTTP effects became non-significant once SES had been included as a predictor.

Gender as a Moderator

As a result of the small number of teen fathers, exploratory analyses were conducted to explore the role of gender in the predictive links between FA and BTTP and teen parenthood. Regression analyses were conducted to examine whether gender moderated the association of FA and adolescent parenthood and BTTP and teen parenthood. Findings are reported in Table 6. Hierarchical regressions were conducted in which FA, BTTP, and gender were entered in step 1, and the interaction terms of gender with FA and gender with BTTP were entered in step 2 of the regression to determine if the risk associated with FA or BTTP varies as a function of gender.

As shown in Table 6, the interaction term of gender with FA was a significant predictor of adolescent parenthood and accounted for the unique variance in adolescent parenthood. Follow-up analyses were conducted to examine the moderator effect of gender on the link between FA and adolescent parenthood. Bivariate correlations for FA and teenage parenthood were computed separately for boys and girls. For boys the correlation (.003) was non-significant; however, the correlation for girls (.233) was significant ($p < .001$). Thus, FA was associated with an increased risk of teen parenthood for girls and not for boys.

In contrast, the interaction term of gender with BTTP was not a significant predictor of teen parenthood and did not contribute to the unique variance in adolescent parenthood. Thus, gender did not moderate the association between BTTP and teen parenthood.

Monitoring as a Moderator

Regression analyses were conducted to determine if parental monitoring moderated the association between FA and adolescent parenthood and more specifically if it served as a protective factor for these at risk youth. As shown in Table 7, FA, BTTP, and parental monitoring were entered in step 1, and the interaction terms of FA and parental monitoring and BTTP and parental monitoring were entered in step 2. Monitoring was centered prior to computing the interaction term. The interaction of FA and parental monitoring was not a significant predictor of teen parenthood. Thus, parental monitoring did not moderate the association between FA and adolescent parenthood.

The interaction between BTTP and parental monitoring was a significant predictor of adolescent parenthood and did account for the unique variance in teen parenthood. Follow-up analyses were conducted to examine whether the correlation between BTTP and adolescent parenthood differed for participants experiencing high versus, medium, versus low levels of parental monitoring. BTTP predicted subsequent adolescent parenthood at low (slope = 4.74, $p < .001$) and average (slope = 2.25, $p < .05$) levels of parental monitoring but not at high levels of monitoring (slope = -.71, ns). Thus, higher levels of parental monitoring mitigated the relation between BTTP and teen parenthood.

Affiliation with Antisocial Peers as a Moderator

Regression analyses were conducted to determine if affiliation with antisocial peers moderated the association between FA, BTTP, and adolescent parenthood. Results are presented in Table 8. FA, BTTP, and affiliation with antisocial peers were entered in step 1, and the interaction terms of FA and affiliation with antisocial peers and BTTP and affiliation with antisocial peers were entered in step 2. Neither the interaction term of FA and affiliation with antisocial peers nor BTTP and affiliation with antisocial peers were significant predictors of adolescent parenthood, indicating that affiliation with antisocial peers did not moderate the association between FA or BTTP and adolescent parenthood.

V. DISCUSSION

Research has established that adolescent parenthood poses many risks for both the teen parents and their children in a variety of domains, including but not limited to financial, educational, career, behavioral and social (e.g., Coley & Chase-Lansdale, 1998; Furstenberg et al., 1989; Thornberry & Smith, 1997). In response to the overwhelmingly negative outcomes associated with becoming a parent in the teenage years, research has sought to identify risk factors associated with teenage parenthood, and to develop effective interventions to reduce the incidence of adolescent parenthood.

In an attempt to replicate and expand previous findings, the primary goal of the present study was to examine the role of father absence and being born to a teen parent in predicting the outcome of becoming an adolescent parent. Previous studies (e.g., Kahn & Anderson, 1992; Quinlan, 2003) have clustered the risks of BTTP and FA together, making it difficult to interpret findings regarding the impact of BTTP and FA independent of one another. The current study examined BTTP and FA individually and found that both FA and BTTP are independently predictive of adolescent parenthood and not redundant. That is, children who in their teen years became parents were more likely than their non-teen-parent counterparts to have experienced FA in early childhood and to have a mother who herself had given birth to a child as a teenager. These findings suggest that although a cumulative risk perspective can be useful in the study of factors

contributing to adolescent parenthood, it is also important to examine the role of risk factors like FA and BTTP.

Also of interest in the current study was whether the relation between FA and BTTP and subsequent teen parenthood might be moderated by developmentally salient parenting and peer experience variables. It was expected that parental monitoring in early adolescence might attenuate the links between the early risk factors and teen parenthood, whereas early adolescent affiliation with deviant peers was expected to strengthen the association between the early risk factors and teen parenthood. These expectations received partial support. The predictive link between BTTP and teen parenthood was attenuated for those youths whose mothers reported high levels of monitoring knowledge. Monitoring did not buffer the link between FA and adolescent parenthood. Affiliation with antisocial peers did not amplify the link between FA or BTTP and teen parenthood. These findings suggest that parental monitoring might play a key role as a risk buffer for youth born to teen mothers. As will be discussed shortly, enhancing the monitoring skills of such mothers may be a useful strategy for decreasing cross-generational continuity in becoming a parent as a teenager.

Before turning to the significance and implications of the study findings, it is important to place the incidence of adolescent parenthood found in the current sample in the context of what has been reported for the population at large. In the United States, approximately 1 million teenagers become pregnant each year, with roughly 51% of those pregnancies resulting in a live birth (Coley & Chase-Lansdale, 1998; Singh & Darroch, 2000). It is estimated that 10% of teenagers in the United States become parents

before their 20th birthday (Singh & Darroch, 2000). Of the 585 participants in the Child Development Project, there are teen parent data for 503 participants, and of these 58, or 12%, became parents. Thus, the incidence of teen parenthood within the current sample is comparable to that of the general population in the United Sates. Research indicates that the incidence of teenage motherhood is greater than that of teenage fatherhood, with approximately 7% of teenage girls and 2% of teenage boys, respectively, becoming parents before their 20th birthday (Thornberry & Smith, 1997). In the current sample, 44 girls became teen parents, which reflects approximately 18% of the girls in the sample, and 14 boys, or 6% of the boys in the sample, became teen fathers. When examining the percent breakdowns of teen mothers and fathers within the sample, the percentages within the current sample are slightly larger than those of the general population. This may be because the CDP is a community sample, not a representative sample, drawn from two cities in Tennessee and one in Indiana. These communities may differ from the broader U.S. population with respect to availability of contraception for teens and access to medical care and options other than completing the pregnancy with a live birth (i.e., availability of abortion and adoption services).

Father Absence and Being Born to a Teen Parent as Risk Factors for Subsequent Adolescent Parenthood

FA and BTTP have frequently been examined as risk factors for problematic outcomes in adolescence, including teen parenthood (Ellis et al., 2003; Geronimus & Korenman, 1992; Hardy et al., 1998; Manlove, 1997). Consistent with this literature, the current study found a significant relationship between FA and BTTP and adolescent

parenthood. The current findings suggest that although FA and BTTP are correlated with one another, as would be expected, they are nonetheless non-redundantly predictive of adolescent parenthood, suggesting that different mechanisms may drive the links between FA and teen parenthood and BTTP and teen parenthood. When considering previous research findings, it is possible that children born to teen moms are socialized to prefer early parenthood (e.g., Hardy et al., 1998; Manlove, 1998), whereas children in FA homes are more likely to engage in risky sexual experiences, such as early transition to coitus and lack of condom use (e.g., Ellis et al., 2003; Newcomber & Udry, 1987; Quinlan, 2003), which in turn increases their risk for teen parenthood. A better understanding of the distinct underlying processes that link FA and BTTP to teen parenthood will allow intervention programs to target teens from FA homes and who were born to teen moms more efficiently. As suggested by the current findings, FA and BTTP operate differently, thus, intervention programs should treat FA and BTTP differently. A discussion of the current findings related to FA and BTTP follows.

Why is being born to a teen mother a risk for adolescent parenthood? The current study joins with other research in documenting a link between being born to a teen parent and becoming a parent during adolescence (Kahn & Anderson, 1992; Manlove, 1997). This effect held after controlling for FA and was not restricted to those children who were born when their mothers were teenagers. Recall that the BTTP variable utilized in the current study reflects both children born to a teen mother as well as children born to a mother who had been a teen at the birth of her first child. Hardy et al. (1998) used a similar variable, and like the current study, found that being born to a mother who had

been a teen at the birth of her first child was a significant predictor of becoming a teen parent oneself.

Hardy et al. (1998) suggest that the cross-generational link in teen-parent status may be attributable, at least in part, to socialization processes in which children develop a preference for becoming a parent relatively early in development. Children born to teen mothers might observe their own mother's teen birth as a model for appropriate timing for childrearing. If teens do not perceive that having a child in their teen years will limit their potential, as exemplified by their mothers, they may not try to prevent teen pregnancy and parenthood. Furthermore, children of teen mothers may be explicitly taught to prefer early childbearing by their mothers. Alternatively, it is possible that children born to teen mothers are at a greater risk for becoming teen parents because their mothers' lack education, suffer economic distress, and are ineffective parents (Kahn & Anderson, 1992). Thus, teens may not be socialized to prefer early parenting, but rather, are at a risk for teenage childbearing as a result of the risky sociocontextual environment in which they are raised.

Why is early father absence a risk factor for teen parenthood? FA frequently has been identified as a potent predictor for a variety of negative sexual outcomes in adolescence, including transition to coitus, pregnancy and parenthood (e.g., Coley & Chase-Lansdale, 1998; Ellis et al., 2003; Hardy et al., 1998; Manlove, 1997; Newcomber & Udry, 1987). The current study found that FA is in fact predictive of adolescent parenthood above and beyond BTTP. Explanations for the link between FA and teen pregnancy and parenthood consistent with a life-course adversity model have tended to

suggest that a father's absence from the home early in development sets into motion a pathway of risky sexual development, which in turn increases the risk for teen pregnancy and childbearing. For example, Newcomber and Udry (1987) found that single parent status affected girls' and boys' permissive attitudes about sexual intercourse during the teen years, with boys and girls who are in single-parent homes at an increased risk for becoming sexually active. Thus, teens in single parent homes are more likely to engage in sexual relations earlier than teens in stable two-parent homes. Furthermore, a study conducted by Quinlan (2003) examined only girls and found that FA increased the girls' reproductive development, with girls from early father-absent homes being twice as likely to experience early onset of menarche, more than four times as likely to experience early sexual intercourse, and two and a half times as likely to experience an early pregnancy when compared to girls from two-parent homes. These findings reinforce the interpretation that father absence creates an environment in which teens are more likely to engage in sexually risky behaviors, such as early onset of menarche, early transition to coitus, and teenage pregnancy, which in turn increases the likelihood of adolescent childbearing.

In contrast, Ellis and colleagues offer social learning and evolutionary models as alternative explanations for the link between early father absence and teenage pregnancy. Utilizing the same sample as the current study, Ellis et al. (2003) also found that girls in early FA homes (before the age of 5) were at a substantially greater risk than their father-present counterparts to become pregnant. One interpretation of this finding, as posited by Ellis and colleagues (2003), is that children are aware of their mother's dating and sexual

behaviors in the absence of their father, and the longer the duration of this exposure the greater the likelihood that girls in FA homes will be sexually permissive and sexually active. An alternate approach proposed by Ellis et al. (2003) stems from an evolutionary perspective, in which girls from early FA homes lack trust in their father's involvement and interest in their lives. These girls are then more likely to engage early sexual relationships. It is likely that the mechanisms underlying the link between early FA and teen parenthood are complex and draw from multiple domains of development.

Father Absence, Being Born to a Teen Parent, and Socioeconomic Status

FA and BTTP are two closely linked variables that are likely to co-occur. For example, teen parents are less likely than older parents to be married, resulting in single parent households (Miller et al., 1998). Both FA and BTTP households are likely to experience economic hardships, lack educational opportunities and experience a variety of stressors within the family unit (Coley & Chase-Lansdale, 1998; Manlove, 1997; Scaramella et al., 1998). Nonetheless, findings from the current study suggest that although FA and BTTP are significantly correlated, each contributes uniquely to the prediction of teen parenthood. However, each also correlated with SES, and when SES is controlled, FA and BTTP are no longer predictive of teen parenthood.

A substantial body of literature has linked low SES to a variety of problematic outcomes in adolescence, including risky sexual behavior. Some studies have found that SES is no longer a significant predictor of teen pregnancy and teen parenthood once other risk factors have been controlled (e.g., Ellis et al., 2003; Hardy et al., 1998; Manlove, 1997), whereas other studies have shown that SES continues to predict such outcomes

even after other factors have been considered (e.g., Corcoran et al., 2000; Thornberry & Smith, 1997). The current study's findings are consistent with the additive perspective. That is, while FA and BTTP co-vary with SES, SES accounts for additive variance in teen parenthood beyond these risk factors. It is likely that SES reflects more of the broader social context, not captured solely by FA and BTTP, that are important in predicting the outcome of adolescent parenthood. These might include factors such as neighborhood safety, access to quality education, career opportunities, and family educational background. It is possible that unsafe neighborhoods and insufficient education and career opportunities add to the risk for becoming a teen parent because teens may not interpret having a child as limiting their opportunities any further. In a sense, teens may experience a glass ceiling effect in which their living conditions already pose such a threat to their future that teen parenthood does not seem as detrimental as it would to a teen with plans of attending college and pursuing a career. Present study findings highlight the important role SES plays in adding to the risk already experienced by FA and BTTP, and demonstrates the complexity of the influence SES has on the outcome of teen parenthood.

Is the Risk for Teen Parenthood Different for Males and Females When Considering FA and BTTP?

The issue of gender and adolescent parenthood presents a gap in the literature. As previously noted, few studies have examined teen fatherhood due to the low base rate of teen fatherhood and reporting difficulties associated with the fact that not all teen fathers know they are fathers (Singh & Darroch, 2000; Thornberry & Smith, 1997). There is

however some evidence that risk factors for adolescent parenthood are similar for males and females. For example, Jaffee and colleagues (2001) found that being born to a teen parent, living in a single parent home, behavior problems, academic difficulties, and early transition to coitus were associated with an increased risk for teen fatherhood. These risk factors have also been associated with teen motherhood (e.g., Coley & Chase-Lansdale, 1998; Furstenberg et al., 1989).

The current study found that BTTP did not differ in the prediction of teen parenthood for males and females, with 36% of teen fathers and 39% of teen mothers being born to teen moms themselves. Hardy et al. (1998) found that males and females, who became teen parents, had experienced BTTP at comparable rates (73% and 71% respectively), although the rates reported by Hardy et al. are much higher overall than those found in the present study. It is possible that the higher rates reported by Hardy et al. (1998) reflect a generational difference as the data was collected between 1960 and 1994. Thus, the second generation of teen parents became parents in the late 1970s. Although teenage childbearing still occurs at alarming rates, there has been a general decline over time, which may account for the difference between data collected currently and the findings presented by Hardy et al. (1998).

Unlike BTTP, results indicate that males and females experience the risk of FA differently. More specifically, in the current study females experiencing FA were more likely to become teen parents than males experiencing FA, with 58% of teen moms compared to 29% of teen dads experiencing early FA. These findings are consistent with previous results reported by Newcomber and Udry (1987), who found that girls were

more affected by single parent status and boys were more affected by the dissolution of marriage in the prediction of the transition to coitus in the teen years. In fact as previously mentioned, girls from single-parent homes were four times as likely to experience early sexual intercourse, and two and a half times as likely to become pregnant than girls from stable two-parent homes. Ellis and colleagues (2003) yielded similar findings. Utilizing the same sample as the current study, they found that early father absence greatly increased girls' risk for teen pregnancy, with girls experiencing early father absence being seven times more likely than their father present counterparts to become pregnant. Ellis et al. (2003) only examined girls; however, the premise of the study was that early father absence is especially significant for girls.

There are many interpretations of the underlying mechanisms that specifically lead girls from FA homes down sexually risky pathways of development. It is possible that the absence of the father from the home limits parental control and increases the opportunity for risky behaviors (e.g., Ellis et al. 2003; Newcomber & Udry 1987). Consistent with a social learning model, it is also likely that girls who are raised in FA homes are exposed to their mother's dating partners and are aware of their mother's sexually active lifestyles, influencing their choice to engage in sexual relationships (e.g., Ellis et al., 1003; Quinlan, 2003). Furthermore, girls may develop sexually permissive attitudes in response to a need for male attention in the absence of their father as suggested by an evolutionary model (Ellis et al., 2003). However, it is likely that various mechanisms are responsible for the sex difference in the link between early FA and teen

parenthood and more research is needed that compares and contrasts these potential processes.

It is important to note that the current study only examined early father absence. It is not clear whether later (i.e., after age 5) father absence likewise is associated with teen parenthood for girls. It is worth noting, however, that Ellis et al. found that early father absence but not later father absence was associated with girls' sexual behavior and teen pregnancy. It remains for future research to document the periods of development during which FA may constitute a risk factor for adolescent parenthood.

It also is important to acknowledge the limited sample size with respect to teen-parent outcomes in the current study, especially for adolescent male teen parent status. Only 14 males became teen parents in the current study (vs. 44 females who became teen parents). Thus, caution should be exercised in interpreting the current study's findings. The low incidence of male teen parenthood is not unique to the present study, however. As previously mentioned, owing to its low base rate, few studies have explored teenage fatherhood. Teenage fatherhood is more difficult to report because many teen fathers do not know they are fathers or are afraid to admit that they are fathers for fear of financial repercussions. In addition, many teenage mothers bear children with older men rather than teenagers, resulting in a discrepancy in the base rate of teenage motherhood and fatherhood (Singh & Darroch, 2000; Thornberry & Smith, 1997). Nonetheless, at least in an exploratory manner, the current study does shed further light on the issue of the sex differences in the potential pathways to teen parenthood that warrant further investigation.

Does Parental Monitoring Moderate the Impact of FA and BTTP on becoming an Adolescent Parent?

Previous studies have found parental monitoring to be a protective factor buffering against family and socio-ecological risks and predicting positive adjustment outcomes in adolescence (Crouter & Head, 2002; Dishion & McMahon, 1998; Pettit et al., 1999). However, research examining the role of parental monitoring as it relates directly to sexual behaviors in teens is limited. Whitbeck et al. (1999) found that parental monitoring in the 8th and 9th grade reduced children's risk for becoming sexually active. In addition, Rail et al. (2003) found that parental monitoring increased condom use and delayed the onset of the transition to coitus. Finally, Huebner and Howell (2003) found that lower levels of parental monitoring were associated with higher levels of sexual risk taking. In the present study, as expected, parental monitoring mitigated the risk for adolescent parenthood for youth whose mothers had given birth as a teen. This suggests that teen mothers who utilize effective parental monitoring are able to protect their children against teen parenthood.

Parental monitoring can be conceptualized as a parent's ability to seek and obtain information about their children (Crouter & Head, 2002). The current study employed a measure examining mothers' reports of their general knowledge of their children's activities, friends and whereabouts. This method of assessing parental monitoring reflects what mothers know (probably gleaned from what their children tell them) and does not reveal what mothers do to obtain this information. How such information is obtained has been the topic of considerable speculation and inquiry. Crouter, Bumpus, Davis, and

McHale (2005) suggest that parents, and mothers more specifically, obtain information about their children in three ways, through self-disclosure on the part of the child, through active questioning of the child, or through another person, like a spouse, sibling or friend. Kerr and Stattin (2000) found that knowledge is acquired primarily through self-disclosure on the part of the teen. Both Crouter et al. (2005) and Kerr and Stattin (2000) suggest that teens' willingness to self-disclose likely has its roots in early qualities of the parent-child relationship, particularly the degree of closeness between parent and child, and extent to which open communication is encouraged.

The current study sought to identify parental monitoring as a risk buffering factor and although there is no direct measure of the mechanism through which parental monitoring is acquired, these current views guide the interpretation of the current study findings. Results indicate that what parents know, the parental monitoring measure employed, acts as a buffer, mitigating the risk for becoming a teen parent for children born to teen mothers. Thus, children born teen parents who perceived themselves to be knowledgeable about their children's whereabouts, activities and friends were less likely to become teen parents themselves when compared to children born to teen parents who reported lower parental monitoring scores.

Considering previous findings, one can speculate on how parental monitoring effectively reduces the risks for teen pregnancy for children born to teen moms. As noted earlier, children born to teen mothers are more likely to become teen mothers themselves because of attitudes and preferences for early parenting passed across generations of teen parents (Manlove, 1997). It is possible that for children born to teen moms, who do not

wish to see their children become teen parents, parental monitoring is employed to limit their children's opportunity to engage in risky behaviors and become pregnant, in addition to the lack of socialization of preferences for early parenthood. Irrespective of the attitudes regarding childbearing in the home, it is possible that high monitoring protects against other risks likely to co-vary with teen parent status (e.g., economic disadvantage) offering an alternate explanation for the moderating influence of parental monitoring on the relationship between BTTP and teen parenthood.

An examination of parental monitoring as a moderator mitigating the risk for adolescent parenthood for children in father absent homes produced no significant findings. As previously suggested, the exposure to FA in the home seems to trigger as risky sexual pathway to teenage parenthood. In the current study, a mother's monitoring does not appear to mitigate the risk already set into motion by exposure to father absence in the home. It is possible that this risky pathway to teen parenthood is set into motion at an early age and parental monitoring at age 12 is not enough to offset the risks previously accrued. In contrast, the age of 12 may represent a key period for supervising children born to teen parents in guiding them away from teen parenthood. It is also possible that this definition of monitoring does not accurately reflect the type of self disclosure and communication that could better protect a teen from engaging in such risky sexual behaviors.

Does Affiliation With Antisocial Peers Moderate the Impact of FA and BTTP on Becoming an Adolescent Parent?

During adolescence peer relationships strengthen and the potential for negative peer influences also increases (Forehand & Wierson, 1993; Franklin & Benson, 2000). Affiliation with antisocial peers has been shown to predict externalizing behavior problems in adolescence (Laird et al., 2001). The current study examined the role of affiliation with antisocial peers as a moderator of the relationship between FA and BTTP and teen parenthood. It was hypothesized that greater affiliation with antisocial peers would strengthen the relation earlier risk factors and subsequent teen parenthood increasing the risk for becoming a teen parent. However, the findings did not indicate that affiliation with antisocial peers amplified the risk for becoming a teen parent for children experiencing BTTP or FA.

Whitbeck et al. (1999) found that antisocial peer involvement was strongly associated with early sexual activity. Similarly, Rail and colleagues (2003) found a strong link between perceived peer risk involvement and actual risk behaviors, indicating that teens who believed their friends engaged in risky behaviors actually engaged in risky behaviors themselves. These studies suggest that affiliation with antisocial peers is strongly associated with risk taking behaviors, including sexual risk taking. The current study found a significant relationship between affiliation with antisocial peers and teen parenthood. However, the affiliation with antisocial peers did not moderate the relationship between FA or BTTP and teen parenthood. The measure of affiliation with antisocial peers employed in the current study was a composite created from standardized

dyadic and group antisocial peer involvement scores. It is possible that by unpacking this variable and examining the dyadic and group antisocial involvement scores separately as potential moderators of the relationship between FA and BTTP and teen parenthood the analyses may yield different findings from the current study.

It is also possible that affiliation with antisocial peers does not moderate the link between FA and BTTP and teen parenthood because it is the actual risk taking behaviors of teens that account for the association between antisocial peer involvement and teen parenthood. A study conducted by Scaramella and colleagues (1998) found that the association between affiliation with deviant peers and teenage pregnancy is mediated by risk taking behaviors. Thus, it was the risk taking behaviors that accounted for the link between deviant peer affiliation and teen pregnancy. Belonging to a deviant peer group has many negative implications for teenagers; however, it is the actual risk taking behaviors of these teenagers that increases the likelihood of negative outcomes such as teen parenthood. Although affiliating with antisocial peers is associated with teen pregnancy and parenthood, it does not increase the risk for becoming a teen parent for children born to a teen parent or from a father absent home. It is possible however, that actual risk taking behaviors, which are influenced by affiliating with antisocial peers, increases the likelihood for becoming a teen parent for teens born to teen parents and experiencing early father absence.

Limitations

Several limitations merit discussion concerning the current study. Attrition analyses suggested that the levels of FA, BTTP and SES were significantly different when comparing the participants for whom teen parent data were available with those for whom no teen parent data were collected. The results suggests that the participants for whom teen parent data were not collected were more likely to experience early father absence, be born to a teen parent and experience lower levels of SES. It is possible that the number of teen parents would be greater if teen parent data were available for these participants. However, it is not expected that the relationship between FA, BTTP, and SES, and teen parenthood would change with additional teen parents.

Secondly, the measure of father absence represents the lack of the biological father in the home at age five, it does not detail the length of this absence nor does it reflect the presence of another father figure (i.e. step-father). Other studies (e.g., Newcomber & Udry, 1987) have looked at single parent status or earlier versus later father absence (e.g. Ellis et al., 2003) Implementing a family structure measure that is more encompassing of the presence of alternative father figures might yield different results than the current father absence variable. In addition, examining the duration of absence may also contribute additional findings.

In addition, the small number of adolescent fathers limited the ability to examine sex differences in the experience and risk for adolescent parenthood. With only 14 teen fathers, only tentative conclusions are warranted. It is important to note that the only study that was explicitly concerned with teen fatherhood (Thornberry & Smith, 1997) had

a very large at risk sample. As such, it is not clear if the Thornberry and Smith (1997) findings would generalize to community samples like the current one. The current findings, although limited by the small N, may be more representative of the general public than previously mentioned studies (i.e., Thornberry & Smith, 1997).

Finally, the parental monitoring measure employed represented the mothers' perception of her knowledge of the child's activities and not the manner through which information was gathered (Pettit et al., 2001). Although the study is able to highlight the importance of monitoring as a protective factor mitigating the risk for teen parenthood for children born to teen mothers, it does not reveal the mechanism through which monitoring protects against teen parenthood for children born to teen parents. Kerr and Stattin (2002) suggest that information is often acquired through self-disclosure on the part of the teen. Implementing a measure that distinguishes between active information seeking by the parent and self disclosure on the part of the adolescent might shed light on how monitoring acts as a buffer in teen parent households.

Future Directions

In response to the limitations of the current study, subsequent steps would be to expand the scope of the father absence measure to examine biological father absence or presence in comparison to the absence or presence of a father (biological or step-father) as well as a measure comparing the duration of this absence. Furthermore, a larger sample would be utilized to increase the potential number of teen parents, especially within male participants, in order to allow for more interpretive analyses comparing male and female teen parents rather than merely descriptive results. A parental monitoring

measure would be employed that assessed how parents' acquired information about their children's whereabouts, activities and friends, enabling for a better interpretation of why monitoring protects against teen parenthood for children born to teen mothers. Furthermore moderator analyses would be expanded to include neighborhood safety and cohesion, friendship and support, and parental involvement. In addition, mediator analyses would be included examining harsh parenting in early childhood, peer rejection in later childhood, and risk taking behaviors in adolescence. Finally, a more direct assessment of the attitudes about early parenting that are passed down across generations would be examined. There is much left to be understood about the developmental pathways that lead to teen parenthood and the underlying mechanisms that operate to link risk factors with the outcome of adolescent parenthood. Hopefully by expanding studies to include mediator and moderator analyses, a better understanding of the mechanisms and processes that result in teen parenthood will be better understood. Furthermore, this information can be employed to target proactive intervention programs aimed at reducing the incidence of teen parenthood.

Summary

In conclusion, the present study adds to the literature on adolescent parenthood, the potential risk factors for teen parenthood, and potential moderators of this outcome. The findings suggest that FA and BTTP are both significant predictors of teen parenthood individually. Furthermore, there does not seem to be a gender difference in the prediction of adolescent parenthood when considering BTTP as a risk factor. However, females seem to be at a greater risk for becoming teen parents when considering the risk of FA.

Results indicate that SES continues to predict adolescent parenthood above and beyond FA and BTTP. Finally, parental monitoring was found to moderate the relationship between BTTP and teen parenthood, protecting those teens that were born to teen mothers against a similar fate. Parental monitoring did not moderate the relationship between FA and adolescent parenthood nor did affiliation with antisocial peers moderate the relationship between FA or BTTP and teen parenthood. In conclusion, results from the current study indicate that both FA and BTTP are significant factors in the pathway to teen parenthood that warrant further study and examination.

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Table 1

Descriptive Statistics Comparing Teen Parents and Non-Teen Parents

Variable	Teen Parents	Participants Who Did Not Become Teen Parents
Father Absent	50% (27)	28% (118)
Born to a Teen Parent	38% (22)	19% (81)
No Risk	31% (17)	63% (265)
1 Risk (FA or BTTP)	49% (27)	26% (111)
Both Risks (FA and BTTP)	20% (11)	11% (44)

Table 2

Descriptive Statistics Comparing Dichotomous Variables by Gender

	Males	Females
Father Absence	30% (6)	36% (70)
Born to a Teen Parent	22% (91)	25% (101)
1 Risk (FA or BTTP)	31% (86)	34% (92)
Both Risks (FA and BTTP)	11% (31)	14% (37)
Teen Parents	6% (14)	18% (44)

Table 3

Descriptive Statistics of All Study Variables

Variables	Range	Mean	Standard Deviation
1. Father Absence	0-1	.33	.47
2. Born to a Teen Parent	0-1	.24	.43
3. SES	8-66	39.53	14.01
4. Parental Monitoring	3-5	4.6	.37
5. Affiliation with Antisocial Peers	1-4.4	1.84	.67
6. Teen Parent	0-1	.12	.32

Table 4

Intercorrelations Among Measures

Variables	1	2	3	4	5	6	7
1. Father Absence		.25**	-.39**	.06	-.20**	.11*	.15**
2. Born To A Teen Parent			-.39**	.04	-.14**	.13**	.15**
3. SES				-.05	.27**	-.18**	-.29**
4. Gender					.14**	-.09	.19**
5. Parental Monitoring						-.30**	-.11*
6. Affiliation with Antisocial Peers							.22**
7. Teen Parent							

Note: * = $p < .05$, ** = $p < .01$, and *** = $p < .001$

Note: Ns range from 403 to 585

Table 5

Summary of Regression Analyses Examining Father Absence, Being Born to a Teen Parent, and SES as Predictors of Adolescent Parenthood

		Adolescent Parenthood		
Step	Predictor	β^a	β^b	ΔR^2
1	Father Absence (FA)	.15***	.12***	.02***
2	Born to a Teen Parent (BTTP)	.13**	.13**	.01**
1	BTTP	.16***	.13**	.03***
2	FA	.12*	.12*	.01**
1	FA	.12**	.05	.04***
	BTTP	.13**	.04	
2	SES	-.28***	-.28***	.06***

Note: [a] = standardized beta at entry, and [b] = standardized beta at final step

Note: * = $p < .05$, ** = $p < .01$, and *** = $p < .001$

Table 6

Summary of Regression Analyses Examining Father Absence, Being Born to a Teen Parent, and Gender as Predictors of Adolescent Parenthood

		Adolescent Parenthood		
Step	Predictor	β^a	β^b	ΔR^2
1	Father Absence	.11*	-.27	.06***
	Born To Teen Parent	.12**	.04	
	Gender	.15***	.06	
2	FA X Gender	.42**	.42**	.02**
	BTTP X Gender	.08	.08	

Note: [a] = standardized beta at entry, and [b] = standardized beta at final step

Note: * = $p < .05$, ** = $p < .01$, and *** = $p < .001$

Table 7

Moderated Regression Analyses Examining Monitoring as a Moderator of the Association Between Father Absence and Adolescent Parenthood

		Adolescent Parenthood		
		β^a	β^b	ΔR^2
Step	Predictor			
1	Father Absence	.13*	.13**	.04***
	Born To a Teen Parent	.09	.07	
	Monitoring	-.08	.02	
2	FA X Monitoring	.01	.01	.03**
	BTTP X Monitoring	-.20***	-.20***	

Note: [a] = standardized beta at entry, and [b] = standardized beta at final step

Note: * = $p < .05$, ** = $p < .01$, and *** = $p < .001$

Table 8

Moderated Regression Analyses Examining Affiliation with Antisocial Peers as a Moderator of the Association Between Father Absence and Adolescent Parenthood, and Being Born to a Teen Parent and Adolescent Parenthood

		Adolescent Parenthood		
Step	Predictor	β^a	β^b	ΔR^2
1	Father Absence	.10*	.10*	.06***
	Born To a Teen Parent	.08	.08	
	Affiliating with Antisocial Peers	.18***	.14*	
2	FA X Affiliating with Antisocial Peers	.10	.10	.01
	BTTP X Affiliating with Antisocial Peers	-.03	-.03	

Note: [a] = standardized beta at entry, and [b] = standardized beta at final step

Note: * = $p < .05$, ** = $p < .01$, and *** = $p < .001$

APPENDICES

Appendix A
Monitoring Items

We're talking to many families to find out what they think about parent issues, and how they are raising their children. We expect there will be many answers, as we know there are many ways to raise kids today. This part of the interview deals with how parents feel about what their children do and how family members keep track of one another. Please rate each of the following items using this scale:
1 = < 5% of the time
2 = about 25% of the time
3 = about 50% of the time
4 = about 75% of the time
5 = > 95% of the time

a. When your child is not home, do you know where he/she is?
b. When your child is not at home, do you know who he/she is with?
c. When your child is not at home, do you know when he/she will return home?
d. Do you know the first and last names of the friends he/she is with?

E. Parenting Practices: This section mainly deals with parents and children and schoolwork and what family members do together.

5. How difficult is it for you to know where your child is and what he/she is doing?
1 = Not at all difficult
2 = A little difficult
3 = Somewhat difficult
4 = Quite difficult
5 = Extremely difficult

For the following questions, please use the following scale:
1 = Never
2 = Hardly ever
3 = Sometimes
4 = Often
5 = Always or almost always

6. How often do you think _____ goes places that you ask him/her not to go?
7. When _____ is at a friend's house, how often do you think that a parent or another adult is there?
8. How often would you know if _____ played with children who get in trouble?

For the next question, use the following scale:

1 = Never
2 = Hardly ever
3 = Some days
4 = Most days
5 = Every days

9. How often do you talk with your child about what they do with their friends when they are away from home?

Appendix B

Affiliation with Antisocial Peers Measure

Best Friend Antisocial Behavior

Rating Scale:

0 = not true

1 = somewhat true or sometimes true

2 = very true or often true

Items:

1. My friend gets into trouble at school.
2. My friend uses bad language.
3. My friend gets into fights with other kids.
4. My friend likes to do things that make me scared or uncomfortable.
5. My friend lies to his/her teachers and parents.

Peer Group Antisocial Behavior Items

Rating Scale:

1 = they never do this

2 = they do this once in a while

3 = they sometimes do this

4 = they do this fairly often

5 = they do this very often

Items:

Do the kids in your group (or your friends):

1. Drink beer or wine
2. Take little things from stores like candy or cigarettes without paying
3. Get into fights with other kids
4. Smoke cigarettes
5. Use illegal drugs