

Teen pregnancy and birth rates have remained high in the United States during the past 10 years (Wu, Bumpass, & Musick, 2001). The public policy response to this social phenomenon has focused primarily on two areas--prevention of teen pregnancy and initiatives to assist adolescent mothers to complete their education and develop positive parenting skills. More recently, policymakers and practitioners have paid greater attention to the involvement of adolescent fathers with their children. Concern about adolescent fathers has been fueled by a number of factors. First is the finding that many adolescent fathers become progressively less involved with their children over the course of time (Marsiglio, Amato, Day, & Lamb, 2000). Second, and perhaps most important, is the growing body of research showing the significant impact of fathers' involvement with their children on children's outcomes (Amato, 1998; Fagan, 2000). Fathers who stay involved with their children and who provide good quality parenting, even when those men do not reside with their children, are more likely to have children who succeed academically, have fewer behavior problems, and relate well with peers in social situations. Third is the consistent finding that women raising children without the presence of a residential father are more likely to be poor and stay poor over time (Bartfeld & Meyer, 2001).

Little is actually known about the involvement of adolescent unwed fathers (Achatz & MacAllum, 1994; Lerman & Ooms, 1993). Unwed fathers of children born to teenaged mothers are least likely to pay child support (Bumpass & McLanahan, 1989). Young couples frequently express positive intentions about father involvement with the adolescent mother and her child. Data from the Fragile Families and Child Well-being Study reveal that 82 percent of new unwed parents are still in romantic relationships, 80 percent predict they will marry, and more than 90 percent of mothers want the father's continued involvement with the child (McLanahan, Garfinkel, Reichman, & Teitler, 2001). Despite these intentions, it appears that many adolescent fathers and teen mothers do not stay together, do not marry, and do not maintain relationships whereby the father is actively involved with his children. It is also noteworthy that researchers and policymakers have not uniformly suggested that unwed fathers should be more involved with the adolescent mother and the child. McLanahan et al. (2001) suggest that many unwed fathers are violent toward the mother or abuse drugs or alcohol, and programs should be cautious about encouraging these young fathers to be more involved with the mother and child.

The present study focuses on factors that are associated with adolescent unmarried, nonresident fathers' prenatal involvement with the teenaged mother. Few studies have examined the involvement of these young men prior to the birth of their children. Yet it is well known that fathers' positive experiences during this period of time are significant for developing bonds with their children following birth. For example, Rivara, Sweeney, and Henderson (1986) found that frequency of young father prenatal contacts was related to frequency of contacts with children nine and 18 months postpartum. Research has also shown that when adolescent fathers are included in decision-making during pregnancy and birth, they are more likely to report increased involvement with their children following birth (Elster & Lamb, 1982; Redmond, 1985). The transition to parenthood is

difficult for parents under the best of circumstances. It is that much more difficult when parents are unwed, poorly educated, young, and unemployed or underemployed.

CONCEPTUAL FRAMEWORK

This study builds on Belsky's (1984) ecological model of parenting. Accordingly, parenting is a multifaceted phenomenon that is influenced by forces from within the individual parent, within the individual child, and from the broader social context. Parental factors consist of the father's personality and developmental history, both of which have direct and indirect influences on parenting. Belsky proposes that individual adult characteristics influence parenting indirectly by affecting the marital relationship, work, and social network support, each of which then directly influences parenting. Child characteristics include factors such as temperament, age, gender, and birth order. We do not address child characteristics in this analysis because the child is not yet born. The broader social context consists of factors such as the quality of the marital relationship (in the case of the present study, the partner relationship), work, social network supports, and peer group and neighborhood influences.

Researchers have examined the association between parental personality characteristics and older fathers' involvement with children. Men's reports of their self-esteem, level of empathy with others, adult life concerns, and relatedness to others were significantly associated with fathers' involvement with children (De Luccie & Davis, 1991; Woodworth, Belsky, & Cmic, 1996). Data from African-American and Puerto Rican Head Start fathers suggest a robust relationship between men who perceive themselves to be more nurturing toward children and amount of time spent in direct interaction with preschool-age children (Fagan, 1998). Nurturance suggests a set of behaviors associated with personality characteristics such as being sympathetic to other peoples' feelings and emotionally involved with others. Thus, in this study we predict a positive relationship between adolescent fathers' level of empathy with others and prenatal father involvement.

The father's education also may be associated with levels of paternal involvement. The same factors that place adolescent fathers at risk for early childbearing (i.e., low educational attainment) also contribute to their lack of involvement with children (Arendell, 1996). Johnson (2001) suggests that education has close ties to fathers' ability to provide financial support, which many regard as a significant factor in nonresident fathers' success in gaining access to their children. Mothers may restrict fathers' access to their children if they provide little financial support to the child. In this study, we expect that low educational attainment will be associated with lower levels of father prenatal involvement.

Quality and status of the mother-father relationship are critical social context variables in this model. There is increasing research evidence suggesting that father involvement is strongly linked to the quality of the mother-father relationship in both residential and nonresidential families. Walker and McGraw (2000) have observed that there is ample evidence suggesting that mothers actively promote relationships between children and fathers. Even when mothers and fathers get divorced, the mother's support is a key factor

in the degree to which fathers participate in co-parenting interaction (Braver & O'Connell, 1998; Madden-Derdich & Leonard, 2000). Others have observed that some mothers exert considerable influence over fathers by gatekeeping (Fagan & Barnett, in press; Doherty, Kouneski, & Erickson, 1998).

The processes linking the mother-father relationship with paternal involvement with children are not entirely clear. Several researchers have observed that in intact families fathers' marital satisfaction and marital stability are linked to greater paternal involvement (Bonney, Kelley, & Levant, 1999; Cummings & O'Reilly, 1997; Kalmijn, 1999). Others have found that marital satisfaction is associated with less paternal involvement (Crouter, Perry-Jenkins, & Huston, 1987). Pleck (1997) suggests that these differential findings may reflect the way in which satisfaction is conceptualized. Higher levels of father involvement may be associated with greater marital satisfaction when global measures of satisfaction are used but with lower levels of marital satisfaction when measures of interparental conflict and disagreement are used. The process is likely to be even more complex among never married teenaged parents. The first consideration is whether or not the young couple is in a romantic relationship (Achatz & McAllum, 1994). Teenaged parents who are no longer romantically involved with one another may have little interest in spending time together. Their desire to avoid the former partner is likely to have a negative impact on the adolescent father's involvement with his child. Romantic involvement also may have a moderating effect on the relationship between variables such as personality traits and fathers' prenatal involvement. For example, the relationship between personality and father involvement may depend on couples' still being together.

The second consideration is the quality of the partner relationship. Young mothers and fathers may experience stress and conflict in their relationship whether or not they are still romantically involved. Even when young parents are not together, high levels of interparental conflict and low levels of interparental support may have a negative impact on the parents' relationship (Madden-Derdich & Arditto, 1999), which ultimately can lead to reduced contact between the nonresident father and his children. Cox, Paley, Burchinal, and Payne (1999) have observed that times of transition for couples may be stressful, especially if spouses show symptoms of depression. Arendell (1995, 1996) has suggested that both younger and older fathers find it difficult to separate their feelings toward their children's mother from those about their children. Anger toward the mother may lead to feelings of not wanting to spend time with the child. Further, adolescent fathers are likely to have little access to role models who can define for them the parameters and expectations of the co-parenting relationship (Furstenberg & Harris, 1993). In this study, we expect that prenatal father involvement will be greater if the young mother and father are still in a romantic relationship and if there is less conflict in the couple's relationship.

The father's labor force participation also may have a significant impact on his prenatal involvement. The time availability hypothesis suggests that persons who have more "free" time, often measured as less time involved in paid labor, are likely to be more available to do housework and child care work (Becker, 1981). In the case of young

unmarried parents, participation in paid work may increase the likelihood of the father's involvement with his child. Many adolescent fathers have few if any job skills, and they frequently lack work experience (Arendell, 1996). Young mothers may encourage the prenatal involvement of fathers when they perceive the young man to be responsible and to have the potential to be a "better" father as a result of his employment. This hypothesis is consistent with Wilson's (1987) notion that joblessness accounts for the diminished family role of the father in disadvantaged communities. Labor force participation also increases the likelihood that adolescent fathers will be able to provide financial support to their children. Recent findings suggest that fathers who provide financial support to their children also tend to be more involved with them (Seltzer, McLanahan, & Hanson, 1998). We hypothesize, therefore, that adolescent fathers will be more involved prenatally if they are also participating in the labor market.

Social support is the next important element in Belsky's (1984) model. Network support can influence fathers' involvement by buffering men's stress during the transition to parenthood. Network members may also actively encourage the adolescent father to stay involved during times when competing interests entice the young man from fulfilling the responsibilities of parenthood. Support from the adolescent father's parents may be a particularly important influence on paternal involvement. Miller (1994) found that the young father's mother was influential in the degree to which African-American fathers maintained contact with their children. The young mother's parents and other female relatives can equally determine paternal involvement (Achatz & McAllum, 1994; Sullivan, 1993, cited in Marsiglio & Cohan, 1997). We expect to find that support from the adolescent father's and mother's family will be associated with increased prenatal paternal involvement.

Additional social context influences may include the adolescent father's peers, siblings, and the presence of a biological father in the household while growing up. The research literature has not revealed a consistent pattern of influence of young fathers' peers on paternal involvement (Marsiglio & Cohan, 1997). Achatz and MacAllum (1994) found that peers have negative attitudes about fathers who give up on their paternal responsibilities; such attitudes may pressure young fathers to provide for and become involved with their children. On the other hand, peers also pressure young fathers to conform to masculine gender role stereotypes, which depreciate roles and activities considered feminine, including adolescent fathers' involvement with their children (Teti & Lamb, 1986 as cited in Marsiglio & Cohan, 1997). The number of peers in one's social network who have children born out of wedlock also may have an impact on young males. The idea here is that the peer group establishes a normative expectation on young men's behavior. In communities where fatherhood is normatively achieved outside of marriage and fathers do not reside with their children, involvement with one's children may be associated with having a larger number of friends who have children born outside of marriage. We also explore the impact of number of mothers' friends with children born outside of marriage on father prenatal involvement. Finally, we extend this analysis to explore the impact of siblings' children born out of wedlock on father involvement.

The absence of a biological father in the household while growing up is believed to have negative consequences regarding paternal involvement (Doherty, Kounesky, & Erickson, 1998). In a 1993 20-year follow-up report of their study with new unmarried African-American fathers, Furstenberg and Harris observed that only 13% of the young adults reported having a strong bond with their nonresident biological fathers, as opposed to 50% for fathers who lived in the household. Raised in single-parent households, usually by single mothers (Doherty et al., 1998, Johnson, 2001), adolescent fathers often lack paternal role models, and this appears to be detrimental to their involvement with their children (Achatz & MacAllum, 1994). We expect therefore that adolescent fathers will be less involved prenatally if their biological father was absent from the home during most of their childhood years. We expect also to find a similar relationship if the mother's biological father was absent from her home during the childhood years.

To summarize, we hypothesize the following relationships:

- * Fathers' prenatal involvement will be positively associated with fathers' and mothers' level of empathy with others.
- * Fathers' prenatal involvement will be positively correlated with mothers' and father's education.
- * Fathers' prenatal involvement will be greater if the father is still together romantically with the mother and if there is less conflict in the partner relationship.
- * Fathers' prenatal involvement will be positively associated with fathers' employment in the labor market.
- * Fathers' prenatal involvement will be positively associated with support from the adolescent father's and mother's family for father involvement.
- * Fathers' prenatal involvement will be positively associated with the number of peers and siblings with children born out of wedlock.
- * Fathers' prenatal involvement will be positively correlated with the presence of the teenaged father's and mother's biological father in the home during most of their childhood.

METHOD

RESEARCH DESIGN

The data in this study were part of a longitudinal data set collected by the authors. The longitudinal study examines predictors of adolescent fathers' involvement with their offspring born to teenaged mothers. Participants of the study are interviewed at three points in time--prenatally (between the seventh and eighth months of the pregnancy), when the baby is six months old, and when the baby is one year old. The current study is

based on the prenatal data and therefore allows only for correlational analysis. Teenaged mothers and the fathers of their unborn children were recruited in the outpatient OB/GYN clinic of a major teaching hospital in an urban, northeastern city. Potential subjects were informed that their participation was strictly voluntary and that there would be no impact on services if they chose not to participate. Participants over age 17 were permitted to sign the informed consent form themselves. Participants under age 17 were required to have a parent's or guardian's signature. Survey forms were administered separately to mothers and fathers. Participants were not permitted to sit in on each other's interview. A research assistant read aloud all items on the paper and pencil instrument. Mothers and fathers each received a small stipend after completing the survey questionnaire.

PARTICIPANTS

A total of 84 adolescent mothers were recruited for this study. Of the 84 young mothers who participated in the study, 57 adolescent fathers completed the prenatal interview. This study is based on the 57 couples that participated fully in the prenatal interview. The teenage fathers who participated in the study were slightly older on average than the participant teenage mothers. The mean age of the fathers was 19.36 years ($SD = 2.81$), and the mean age of the mothers was 17.05 years ($SD = 1.33$). About 36% of the fathers and 49% of the mothers reported being in school at the time the study was conducted. The median education of fathers was 11th grade, and of mothers 10th grade. The race or ethnic background of the fathers was 64.9% African American, 29.8% Hispanic, 1.8% American Indian, 3.5% other, and 1.8% unknown. The race or ethnic background of the mothers was 72.3% Black, 22.9% Hispanic, 1.2% Caucasian, and 3.6% other. Of the teenage fathers, 56.9% reported working at the time of the study, and 10.8% of the mothers reported working as well. The majority of the fathers, or 73.7%, had a job in the past six months, whereas 25.3% of the mothers reported having had a job in the past six months. The fathers' biological parents' marital status was 63.2% never married, 21.1% married, 12.3% divorced, and 3.5% separated. The mothers were similar with 63.9% never married, 19.3% married, 9.6% divorced, and 7.2% separated.

INSTRUMENTS

Adolescent fathers' prenatal involvement was measured using an instrument, *How Involved Are You During The Pregnancy*, developed specifically for this study. The seven-item instrument was developed based on a review of the transition to parenthood literature and on interviews with pregnant parents about the important components of fathers' prenatal involvement. Prenatal involvement is defined as fathers' participation in OB/GYN visits (one item), planning for the baby (four items), and interacting with the baby prenatally (two items). Respondents (mothers and fathers) are instructed to indicate how often the father of the baby participates in various prenatal activities on a five-point scale. Response options range from 1 = never to 5 = always. Sample items include: "How often do you talk about plans for the baby?" and "How often do you speak with the baby while in the mom's belly?" The Cronbach's alpha for the adolescent fathers was .85 and for the teenage mothers .88.

The Jackson Personality Inventory (JPI) was adapted, for use in this study, to measure mother and father empathy (Jackson, 1976). The interpersonal affect scale, which assesses the degree to which an individual perceives himself or herself as sympathetic to other peoples' feelings and as emotionally involved in the problems of others, is essentially a measure of one's empathy. Teenage mothers and fathers in the study were asked to provide true or false responses to 20 items. However, the Cronbach's alpha obtained using these items was low. Eight of the 20 items were therefore selected that appeared to be the best measures of empathy. A sample item included (a) "I would like to spend a great deal of my time helping less fortunate people." High scores on this scale denote higher levels of empathy. The Cronbach's alpha for the eight-item scale was .62 for participant adolescent mothers and .68 for the adolescent fathers.

The spouse subscale of the Parenting Stress Index (Abidin, 1995) was adapted for use in this study to assess conflict between the adolescent mother and adolescent father. The instrument includes seven items with response options ranging from 1 = strongly disagree to 5 = strongly agree. Sample items include "Getting pregnant has caused more problems than I expected in my relationship with the mother/father of my baby," and "Since she got pregnant, the mother of the baby has not given me as much help and support as I expected." High scores on this scale reveal a greater degree of conflict between the young couple. The Cronbach's alpha for this subscale was .68 for the participant adolescent fathers and .78 for the mothers.

Information was also sought regarding other independent variables. The survey instrument contained questions regarding the teenage mothers' and fathers' education (highest grade completed), teenage mothers' and fathers' employment status ("Are you currently working?"), age, and whether teenage fathers and mothers were still romantically involved. Teenage parents were also asked about their family's support of their relationship (response options range from 1 = unsupportive to 4 = very supportive), their parents' marital status when they were born, and their fathers' residential status during most of the years when they were growing up. Additionally, participants were asked about the number of siblings, whether the siblings had out-of-wedlock children, and if so how many. Respondents were also asked to tell who their close friends were, and to indicate their friends' age, marital status, and whether the friends had any children before marriage. We computed the ratio of number of children born out of wedlock to number of siblings age 13 and above. A similar ratio was computed for friends with children born out of wedlock.

RESULTS

PRELIMINARY ANALYSES

Factor analyses were conducted on mother and father perceptions of paternal prenatal involvement and on mother and father perceptions of conflict in the partner relationship. The first set of analyses revealed that mother's and father's scores on the prenatal measure loaded together on one factor, accounting for 77% of the variance in the data set

(eigenvalue = 1.54). Based on this finding, a single father prenatal involvement factor was created by adding the scores of mother and father perceptions of father involvement.

The second set of analyses was conducted on mother and father scores of interparental conflict. The factor analysis revealed that mother and father assessments of conflict loaded on one factor, accounting for 68% of the variance in the data set (eigenvalue = 1.36). A composite conflict score was created, therefore, by adding scores of mothers and fathers.

We noted earlier that 84 mothers were recruited for this study. The findings of this study are based on the 57 couples in which both the teen mother and adolescent father participated in the survey. A series of t tests and chi-square analyses were carried out to examine potential differences between the teen mothers with partners who participated in the study and teen mothers with partners who did not participate. Table 1 reveals no significant differences for the adolescent mother demographic variables, including mother's education and age, her parents' marital status when she was born, and her father's residence during most of the years when she was growing up. There were no significant differences for mother's current work status, current school attendance, or the ratio of number of children born out of wedlock to siblings or to friends. There were also no significant differences for the adolescent mother's empathy or for reports of family support for the adolescent father's involvement. There were, however, significant differences on the following variables: maternal reports of conflict in the partner relationship ($t = 2.12, p < .05$) and romantic relationship ($[\chi^2]_{sup.2} = 3.73, p < .05$). There was also a significant group difference for the adolescent father's prenatal involvement ($t = -2.52, p < .05$). Fathers who participated in the study were significantly more likely to be involved with their unborn child. They were more likely to be in a romantic relationship with the adolescent mother, and they reported less interparental conflict.

DESCRIPTIVE ANALYSES

The majority (86.2%) of the adolescent fathers and mothers reported still being romantically involved ($M = 1.86; SD = .35$). For 64.9% of the participant fathers, the unborn baby was their first child, 21.1% of the adolescent fathers already had one child, and 14% had two children. Similarly, 72.3% of the mothers were expecting their first child, 20.5% already had one child, and 7.2% had two children. Fathers' reports of their family's support of the relationship with the adolescent mothers averaged 3.43 ($SD = .88$) on a four-point scale (from 1 = unsupportive to 4 = very supportive), and mothers' mean score was 3.27 ($SD = .94$) (see Table 2). The average report of interparental conflict was 2.44 ($SD = .73$) with response options ranging from 1 (strongly disagree) to 5 (strongly agree), suggesting a moderate level of partner conflict.

With regard to levels of empathy, the average item score for the adolescent fathers in the study was slightly lower ($M = 1.59; SD = .24$) than the average item score for their

female counterparts ($M = 1.71$; $SD = .25$). The ratio of number of children born out of wedlock to number of siblings age 13 and above was as follows: fathers ($M = .72$; $SD = .87$), mothers ($M = .47$; $SD = .63$). The ratio of number of children born out of wedlock to number of friends was, for fathers ($M = .44$, $SD = .72$), for mothers ($M = .52$; $SD = .68$). Finally, the average item score for the teenage couple's perception of father prenatal involvement was 3.94 ($SD = .89$). Reports of father prenatal involvement indicated that fathers participated, on average, very often (1 = never, 5 = always) in prenatal activities.

Descriptive statistics were also calculated for two groups of teenaged couples: those who were still romantically involved and those who were not. Average item scores indicate that teenage parents who reported still being romantically involved also reported that fathers were more involved prenatally ($M = 4.12$, $SD = .68$), on average, than parents who were no longer romantically involved with each other ($M = 2.85$, $SD = 1.28$). Reports of interparental conflict were moderately higher, on average, for those who were no longer in a romantic relationship ($M = 3.20$, $SD = .91$) than for those parents who were ($M = 2.32$, $SD = .63$). Father's mean level of empathy was roughly the same for those romantically involved ($M = 1.51$, $SD = .15$) and for those not romantically involved ($M = 1.55$, $SD = .17$). Last, adolescent fathers who were still in a romantic relationship with the mother of the baby reported more support from their families ($M = 3.54$, $SD = .84$), on average, than did fathers not romantically involved with the mother ($M = 2.75$, $SD = .89$).

BIVARIATE ANALYSES

Tables 3 and 4, respectively, show the correlation matrix for the teenage mothers and fathers who participated in the study. Results indicate that the teenage mother's family support of the relationship with the father of the baby bears no association with the father's prenatal involvement. Nonetheless, there was a positive and significant relationship between the adolescent father's family support of the relationship with the mother of the baby and father prenatal involvement ($r = .44$, $p < .01$). That is, the greater the support from the father's family, the more likely the adolescent father is to be prenatally involved.

There was a negative and significant relationship between the amount of conflict in the relationship and the couple's perceptions of father's prenatal involvement ($r = -.63$, $p < .01$). That is, the higher the conflict in the relationship, the less likely the father is to be involved. Equally negative and significant was the association between the ratio of number of children born out of wedlock to the mothers' friends and father's prenatal involvement ($r = -.36$, $p < .01$). The larger the ratio, the less involved the father is likely to be. Being still romantically involved is directly proportionate to the couple's perception of father prenatal involvement ($r = .50$, $p < .01$). Finally, the teenage mother's and the father's empathy both bear a fairly weak association with the adolescents' perception of father prenatal involvement.

MULTIVARIATE ANALYSES

The backwards multiple regression procedure was used as a means to construct a model that maximizes the [R.sup.2]. First, all father-related independent variables (i.e., father's education) hypothesized to predict father involvement were entered into the model. Next, the variable with the smallest partial correlation was eliminated as long as the probability of its F value was .10 or greater. This procedure was repeated until the "best" model was found. The same process was followed for all mother-related independent variables (i.e., mother's education). The final step was to combine all significant mother- and father-related variables into one model predicting fathers' prenatal involvement.

This procedure resulted in a model that predicted 64 percent of the variance in the dependent variable (see Table 5, Model 1). Five independent variables remained as significant predictors of paternal prenatal involvement. The variables included the father's employment status, [beta] = .25, $p < .05$, romantic relationship, [beta] = .21, $p < .01$, father's empathy, [beta] = .16, $p < .10$, interparental conflict, [beta] = -.54, $p < .001$, and ratio of children born out of wedlock to the number of mother's friends, [beta] = -.34, $p < .01$.

In Model 2, we explored the interaction between romantic involvement and other independent variables (i.e., empathy, interparental conflict). In keeping with the procedure to maximize [R.sup.2], only significant interaction effects are included in the model. Table 5 reveals one significant interaction effect (romantic involvement x interparental conflict). The interaction variable increases the [R.sup.2] by .03. Further examination reveals a stronger negative relationship between interparental conflict and father involvement among couples no longer in a romantic relationship ([beta] = -.74, $p < .05$) than among couples still in a romantic relationship ([beta] = -.46, $p < .001$).

DISCUSSION

The purpose of the study described here was to examine predictors of adolescent, unmarried fathers' prenatal involvement with the pregnant teenaged mothers of their children. Based on Belsky's model of parenting, father characteristics, mother characteristics, and social context were expected to predict the man's prenatal involvement. The third major component of Belsky's model, child characteristics, was not included in the study because the child was not yet born. In support of the model, the results showed that fathers were more involved when they had higher levels of empathy. The social context variables associated with father involvement included being in a romantic relationship with the mother of the baby, having less conflict in the partner relationship, father's employment status, and ratio of number of children born out of wedlock to the mother's friends age 13 and older.

The findings of the present study add to the growing body of research (i.e., De Luccie & Davis, 1991; Woodworth, Belsky, & Crnic, 1996) suggesting that fathers' personal

characteristics have an impact on men's involvement with their children. The current study suggests that the adolescent father's personality traits appear to influence the man's involvement even before the child's birth. Further, the findings of this study reveal that personality is associated with involvement after controlling for factors such as quality and status of the partner relationship, employment, and peer influences. For example, adolescent fathers with higher levels of empathy were more likely to be involved even when they are no longer in a romantic relationship with the mother of the baby or when they are not employed in the labor market.

A significant finding of this study was the link between prenatal father involvement and employment. Results of the multivariate analysis revealed that working fathers were more involved even after accounting for personality traits, quality and status of the partner relationship, and influence from peers. There may be several interpretations for the association between father employment and prenatal involvement. Employment may be just one indicator of the man's social-emotional maturity. If this is the case, then employment per se does not influence involvement. Instead, the critical explanatory variable would be the father's level of maturity. Mature young men tend to be more responsible parents and therefore become more involved prenatally regardless of other factors (i.e., still being romantically involved with the teenaged mother). It is also possible that teenaged mothers feel more positive about adolescent fathers who are working. They may perceive the father's employment as an indication of his commitment to her and the unborn child, particularly if his employment results in financial support to the mother. This explanation implies a process of maternal gatekeeping. That is, mothers restrict the adolescent father's access to her when he is not working and facilitate his involvement when he is working. Another explanation is that fathers who are more involved prenatally become motivated to work as a means of supporting the well-being of the mother and child. Future research is needed to explain the relationship between employment and father involvement. Qualitative research designs may be well suited for explaining how these variables are linked.

The association between quality and status of the partner relationship and prenatal involvement was particularly interesting in this study. Consistent with results from the Fragile Families Study (McLanahan, Garfinkel, Reichman, & Teitler, 2001), this investigation revealed a robust relationship between romantic involvement and fathers' prenatal involvement. Indeed a growing body of research has shown that the relationship between parents is closely linked with the degree to which fathers are involved with their children. We were particularly interested in the finding that interparental conflict was negatively associated with fathers' prenatal involvement. While we were not surprised to find that conflict in the relationship predicts father involvement, we were intrigued by the finding that conflict was significantly associated with father involvement whether or not the adolescent father and mother were still romantically involved with each other. This finding points to the importance of relationship quality and not just categorical variables such as absence-presence or romantic involvement. The quality of relationships between former partners varies considerably and influences men's relationships with their children. We note that interparental conflict was the most robust predictor of father involvement in the multivariate analysis. Moreover, the association between interparental

conflict and the dependent variable decreased marginally when other independent variables, including romantic involvement, were in the model.

A second model was estimated to explore possible interaction effects on fathers' prenatal involvement. The findings revealed a significant interaction effect between romantic involvement and interparental conflict. Fathers' prenatal involvement decreased markedly when they were no longer romantically involved and when the couple reported a high level of conflict. In contrast, fathers' prenatal involvement decreased significantly but at a slower rate when they were romantically involved with the adolescent mother at the same time they experienced high levels of conflict. In other words, conflict has an impact on fathers' prenatal involvement, but the strength of the impact depends on the status of the couple's romantic relationship.

Peer influences were also explored in this study. We hypothesized that adolescent fathers would be more involved if their friends or siblings had children born outside of marriage. We also expected that father involvement would be affected by teenaged mothers' friends and siblings having children born out of wedlock. The idea here is that in communities where fatherhood is normatively achieved outside of marriage and fathers do not reside with their children, father involvement will be greater if peers and siblings also have children outside of marriage. This hypothesis was not supported in this study. There was one instance, however, in which father involvement was affected by peer influence. The proportion of teenage mothers' friends with children was negatively associated with prenatal involvement. That is, fathers were less likely to be involved when the adolescent mother had friends with children born outside of marriage. Noteworthy here is that the mother's peer group and not the father's peer group influences father's prenatal involvement. Further, the negative relationship between variables suggests that when a larger number of friends have children out of wedlock, the expectation that fathers will be involved prenatally decreases. In communities where fatherhood is normatively achieved outside of marriage, one can expect less peer pressure on fathers to be involved.

We note a number of limitations with the data in this study. Caution should be exercised in interpreting causal relationships from correlational data. For example, interparental conflict may lead to lower levels of fathers' prenatal involvement, but greater involvement may also lead to less conflict between mothers and fathers. We also note that objective data regarding father involvement were not collected for this study. Instead, we relied on mother and father reports of prenatal involvement. Although objective observations of father involvement are preferable, there was a good deal of consistency between mothers and fathers in their assessments of father involvement. This finding suggests a high level of reliability for the measure employed.

The sample of adolescent fathers and adolescent mothers that participated in the study presented yet another limitation. While the participation rate was fairly high (68%), the couples that participated differed significantly in some ways from those that did not participate. The participating couples were more likely to be together romantically, and the adolescent fathers were more likely to be prenatally involved. We suspect that the relationship between prenatal involvement and several independent variables would have

been stronger had the other fathers participated. For example, there would have been a higher correlation between romantic involvement and prenatal involvement with all data available.

The results of the current study have several implications for social policy and practice with adolescents who bear children out of wedlock. There is increasing national support for programs to provide job readiness and training opportunities for adolescent fathers. The assumption of these programs is that fathers who are gainfully employed are more likely to become responsible fathers. The findings of the present study support the notion that labor force participation is linked to father involvement. The data from our study seem to support the social policy emphasis on job enhancement of adolescent fathers. The findings of the present study are also relevant to recent policy and program initiatives emphasizing marriage and co-parenting relationships. While we are doubtful that policy can influence the presence of a romantic relationship or marriage, we believe that social service, health care, and faith-based organizations can help young unmarried couples to develop relationships based in respect and cooperation on behalf of one's children. Our findings suggest that fathers' prenatal involvement is influenced by conflict between partners whether or not the couple is in a romantic relationship. Social service programs can easily develop initiatives aimed at helping young couples to co-parent. These programs can assist fathers and mothers who are no longer together to learn the skills needed to stay involved as parents and to work out their differences.

Future research is needed to replicate the findings of this study. Investigations are needed to determine if romantic involvement, interparental conflict, and employment predict adolescent father involvement after the birth of the child. Researchers should also consider longitudinal research designs to determine the relationships between these variables over time. For example, how does interparental conflict experienced over a period of time affect father involvement? We think that the answers to such questions are critical not only for understanding family processes but also for designing viable social policy and program initiatives.

Table 1
Comparison of Samples in Which the Father Did and Did Not Participate in the Study

Variable	Father in study	
	M	(SD)
Mother's education	10.15	(1.38)
Mother's family support	3.36	(.86)
Interparental conflict	2.35	(.87)
Mother's empathy	1.70	(.25)
Siblings have out-of-wedlock children	.38	(.45)
Friends have out-of-wedlock children	.46	(.69)
Mother's age	17.13	(1.27)
Father's prenatal involvement	3.96	(.96)

Mother works currently	10.8%
Mother currently in school	49.4%
Romantically involved	86.2%
Mother's biological father resided with teen	48.2%

Variable	Father not in study	
	M	(SD)
Mother's education	10.37	(1.25)
Mother's family support	3.07	(1.07)
Interparental conflict	2.81	(1.04)
Mother's empathy	1.72	(.27)
Siblings have out-of-wedlock children	.66	(.88)
Friends have out-of-wedlock children	.62	(.68)
Mother's age	16.89	(1.48)
Father's prenatal involvement	3.32	(1.28)
Mother works currently	3.37%	
Mother currently in school	48.1%	
Romantically involved	37%	
Mother's biological father resided with teen	44.4%	

Variable	t	[Chi square]
Mother's education	.72	
Mother's family support	-1.29	
Interparental conflict	2.12 *	
Mother's empathy	.11	
Siblings have out-of-wedlock children	1.87	
Friends have out-of-wedlock children	.97	
Mother's age	-.75	
Father's prenatal involvement	-2.52 *	
Mother works currently		2.11
Mother currently in school		.03
Romantically involved		5.55 *
Mother's biological father resided with teen		.10

Note. The average item score is reported for interparental conflict, mother's empathy, and father's prenatal involvement.

* $p < .05$.

Table 2
Descriptive Statistics for the Major Study Variables

Variable	Father		Mother	
	M	(SD)	M	(SD)

Family support of relationship	3.43	(.88)	3.27	(.94)
Interparental conflict (a)	2.44	(.73)		
Empathy	1.59	(.24)	1.71	(.25)
Father's prenatal involvement (a)	3.94	(.89)		
Ratio of children born out of wedlock to siblings	.72	(.87)	.47	(.63)
Ratio of children born out of wedlock to friends	.44	(.72)	.52	(.68)
Biological father resided with teen while growing up	56.1%		.53	

(a) Variable is the combined father and mother score.

Note: The average item score is reported for Interparental conflict, Mother's empathy, and Father's prenatal involvement.

Table 3
Correlation Matrix for Father Variables

Variable	2	3	4	5
1. Age	.48 **	.21	.14	.16
2. Number of children	1.00	-.13	.13	-.05
3. Education		1.00	.03	.02
4. Romantic involvement			1.00	.31 **
5. Support from family				1.00
6. Employment status				
7. Parents' marital status when father born				
8. Biological father resided with teen				
9. Empathy				
10. Friends' children born wedlock				
11. Siblings' children born out of wedlock				
12. Interparental conflict				
13. Father's prenatal involvement				

Variable	6	7	8	9
1. Age	.23 *	.12	-.32 **	.15
2. Number of children	.21	.05	-.22	-.12
3. Education	.05	.07	-.03	.05
4. Romantic involvement	.06	.13	.05	-.10
5. Support from family	.07	.21	-.14	.12
6. Employment status	1.00	.34 **	.14	-.02
7. Parents' marital status when father born		1.00	.36 **	.16
8. Biological father resided with teen			1.00	-.08
9. Empathy				1.00
10. Friends' children born wedlock				

- 11. Siblings' children born out of wedlock
- 12. Interparental conflict
- 13. Father's prenatal involvement

Variable	10	11	12	13
1. Age	.14	.09	-.09	.10
2. Number of children	.10	-.28 *	.02	-.01
3. Education	.17	.05	-.18	.11
4. Romantic involvement	.15	.09	-.42 **	.50 **
5. Support from family	-.27 *	.24 *	-.39 **	.44 **
6. Employment status	.09	-.25 *	.13	.17
7. Parents' marital status when father born	-.15	-.08	-.09	.16
8. Biological father resided with teen	.11	-.10	.13	-.08
9. Empathy	.05	-.08	-.15	.21
10. Friends' children born wedlock	1.00	-.11	.26 *	-.07
11. Siblings' children born out of wedlock		1.00	-.28	.12
12. Interparental conflict			1.00	-.63 **
13. Father's prenatal involvement				1.00

* p < .05. ** p < .01

Table 4
Correlation Matrix for Mother Variables

Variable	2	3	4	5
1. Age	.38 **	.52 **	-.04	-.11
2. Number of children	1.00	-.13	.10	.03
3. Education		1.00	.05	-.15
4. Romantic involvement			1.00	-.06
5. Support from family				1.00
6. Employment status				
7. Parents' marital status when father born				
8. Biological father resided with teen				
9. Empathy				
10. Friends' children born out of wedlock				
11. Siblings' children born out of wedlock				
12. Interparental conflict				
13. Father's prenatal involvement				

Variable	6	7	8	9
1. Age	.08	-.02	-.00	.20

2. Number of children	-.07	-.02	.03	-.03
3. Education	.09	-.09	.03	.08
4. Romantic involvement	.02	-.04	.02	.04
5. Support from family	.02	-.03	.04	-.01
6. Employment status	1.00	-.10	.10	.08
7. Parents' marital status when father born		1.00	.18	.19 *
8. Biological father resided with teen			1.00	.06
9. Empathy				1.00
10. Friends' children born out of wedlock				
11. Siblings' children born out of wedlock				
12. Interparental conflict				
13. Father's prenatal involvement				

Variable	10	11	12	13
1. Age	.22 *	.24 *	-.15	.06
2. Number of children	.14	.03	.03	-.11
3. Education	.21 *	.23 *	.06	-.02
4. Romantic involvement	-.19	.09	-.42 **	.50 **
5. Support from family	.13	-.01	-.23 *	.01
6. Employment status	-.03	-.06	-.09	.01
7. Parents' marital status when father born	-.06	-.05	.01	.03
8. Biological father resided with teen	.22 *	.04	.07	-.10
9. Empathy	.12	.20 *	-.07	.18
10. Friends' children born out of wedlock	1.00	.07	.04	-.36 **
11. Siblings' children born out of wedlock		1.00	-.28 *	.12
12. Interparental conflict			1.00	-.63 **
13. Father's prenatal involvement				1.00

* p < .05. ** p < .01.

Table 5
Multiple Regression Analyses Predicting Fathers' Prenatal Involvement

Variable	Model 1		
	B	[beta]	SEB
Father's employment	6.66	.25 ***	2.42
Romantic relationship	7.45	.21 *	3.76
Father's empathy	1.09	.16 *	.62
Interparental conflict	-.67	-.54 ****	.13
Ratio of children born out-of-wedlock to the # of mother's friends	-6.60	-.34 ***	1.80
Romantic x conflict			

F	15.61		
Total [R.sup.2]	.64	****	
	Model 2		
Variable	B	[beta]	SEB
Father's employment	6.70	.25 ***	2.35
Romantic relationship	-15.53	-.43	12.08
Father's empathy	1.08	.16 *	.60
Interparental conflict	-1.64	-1.32 ***	.50
Ratio of children born out-of-wedlock to the # of mother's friends	-6.64	-.34 ****	1.74
Romantic x conflict	.55	.79 *	.28
F	14.55		
Total [R.sup.2]	.67	****	

* p<.10. ** p<.05. *** p<.01. **** p<.001.

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Correspondence concerning this article should be addressed to Jay Fagan, School of Social Administration, Temple University, Ritter Hall Annex, 5th Floor, Philadelphia, PA 19122. Electronic mail: jay.fagan@temple.edu.

JAY FAGAN, MARINA BARNETT, ELISA BERND, and VALERIE WHITEMAN
Temple University