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A Comparison of Pregnant/Parenting and Non-Pregnant/Non-Parenting Female Adolescents on Locus of Control and Perceived Parental Attachment

M. Leigh Blount

ABSTRACT: A COMPARISON OF PREGNANT/PARENTING AND NONPREGNANT/NONPARENTING FEMALE ADOLESCENTS ON LOCUS OF CONTROL AND PERCIEVED PARENTAL ATTACHMENT

M. Leigh Blount, BsEd

A Thesis Presented to the Faculty of the Graduate School of Lindenwood University in Partial Fulfillment of the Requirements for the Degree of Master of Art, August 2000

This study compared pregnant/parenting adolescent females and their childless counterparts on the variables of locus of control and perceived parental attachment. The sample was drawn from two high schools in the suburban St. Louis area. Subjects completed the Levenson's Multidimensional Locus of Control Subscales and the Parental Attachment Questionnaire. It was hypothesized that the pregnant/parenting group would score higher on the Powerful Others subscale of the Multidimensional Locus of Control instrument. Also, it was hypothesized that the pregnant/parenting group would score lower than the nonpregnant/nonparenting group on all of the subscales on the Parental Attachment Questionnaire for both mother and father. T-tests were conducted to analyze the relationships between the two groups. No significant differences were found between the two groups on any subscale.

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Table of Contents

List of Tables

A Comparison of Pregnant/Parenting and Nonparenting Female Adolescents on Locus of Control and Perceived Parental Attachment

The United States has a higher rate of teen pregnancy than any other industrialized country. Over 500,000 children were born to women under the age of 20 in the United States in 1990 alone. Although the teenage birth rate has declined steadily since 1991, teen pregnancy remains a problem (Ventura, Curtin, & Mathews, 1998).

Four out of ten American girls get pregnant at least once before they turn twenty. As a result of increased responsibilities, adolescent parents have difficulty graduating high school, which negatively impacts their income potential. Consequently, from 1985-1990, the public contributed $120 billion to programs assisting teenage parents and their children. This cost could have been reduced by 48 billion dollars if the children had been born to mothers who were at least 20 years old (Center for Disease Control and Prevention [CDC], 1999).

Recently, the Clinton administration has invested many resources to help prevent adolescent parenting and pregnancy. At least thirteen community partnerships in eleven states are executing comprehensive, integrated youth programs to eliminate adolescent pregnancy (Ventura, Curtin, & Mathews, 1998). For these programs to have a better chance of succeeding, all aspects of adolescent pregnancy and parenting need to be understood.

Many researchers have undertaken this challenge. To date, many studies have focused on trying to understand the cognitive differences

between pregnant/parenting adolescents and their childless counterparts. They seek to understand why, despite increases in the availability of birth control as well as information regarding the hardships of parenting, many adolescents are still becoming parents. This study will attempt to build on previous research by continued examination of the cognitive differences between parenting and nonparenting adolescents, this time in the area of control orientation and perceived current parental attachment.

Adolescents in the nineties have an advantage that did not exist for previous generations. There is more information and methods for preventing pregnancy than at any other time in history. For an adolescent to decrease her risk of pregnancy, all she would have to do is educate herself and use safe sexual practices. It seems like a reasonable and simple course of action to prevent pregnancy. That is, of course, if the adolescent believed that her actions influenced the events of her life. But, what happens if an adolescent believes that her actions do not necessarily predict life events? If she believed that things happen as a result of chance or that some powerful other was controlling her life, might she be more lax with using proper birth control and as a result become pregnant? After all, under this belief system, pregnancy is a result of luck, so why try to prevent it? Julian Rotter (1966) termed this concept of how people's perceptions of control over rewards effected their decisions as "locus of control."

Rotter first articulated the locus of control concept in connection with Social-Learning Theory in 1966. He conceptualized a continuum where on

one end was externally controlled individuals and at the other end, internally-controlled. Externally controlled people believe that they have little or no control over what happens. On the other hand, internally-controlled individuals believe events happen as a result of personal effort. Thus, internally-controlled people are more likely to change their behavior following a reinforcement than externally controlled individuals (Marks, 1998).

In 1974, Hanna Levenson expanded Rotter's locus of control theory. Levenson divided the external control into control by powerful others and "luck" or "chance" control. She hypothesized that belief in powerful others created behaviors that were different than behaviors that happened as a result of luck, or chance, control belief. In fact, a belief in powerful others may be accurate and not a sign of maladjustment (Lefcourt, 233). For example, many adolescent mothers still live with their own parents or a much older boyfriend. This compounded with the fact that they are still legally minors and are raising a baby, may lead them to rightfully believe that "powerful others" have control over their lives. If they score externally on the Rotter Locus of Control scale, it may be due to the fact that they do have someone making decisions for them; not just a belief that events happen as a result of chance or luck. Since the Levenson's Multidimensional Locus of Control scale does split the external orientation between powerful others and luck, it will be employed in this study to accurately assess control beliefs.

Statement of Purpose

Thus, the first purpose of this study is to determine whether or not there is a significant difference in control orientation between adolescent mothers/mothers-to-be and a comparable sample of childless female adolescents. For this purpose, the independent variable isif the subject is currently pregnant/parenting or has no children, and the dependent variable will be her score on the Levenson's Multidimensional Locus of Control scale. Based on the research, it is hypothesized that female adolescents who are pregnant/parenting will score more externally on the Powerful Others subscale when compared with female adolescents who are not parenting or pregnant.

In addition to locus of control, this study investigated what role perceived current parental attachment played in the choices an adolescent parent has made. Just as adolescents' control beliefs may affect the circumstances which lead to them becoming parents, so might their perceived current relationship with their own parents.

At present there are no conclusive published studies that directly investigate the relationship between adolescent parenting and perceived current parental attachment. Nevertheless, research has shown that adolescents who believe they have a poor relationship with their parents are more likely to engage in risky behaviors such as alcohol usage and more frequent sexual relations with several partners (Staton et al.; 1999; Beer & Bray, 1999). Other studies have shown that the more often adolescent females engage in sex, the more likely they are to become pregnant (Gerrard & Luus, 1995). So, if poor

relationships with parents are correlated with increased sexual frequency and increased sexual frequency is associated with greater risk of pregnancy, might not there be a relationship between poor parental relationships and teenage pregnancy? Thus the secondary purpose of this study is to see if a significant difference exists in perceived current parental attachment between adolescent pregnant/parenting females and a comparable sample of nonpregnant/parenting female adolescents.

For this part of the study, the independent variable was adolescent pregnancy/parenting. The dependent variable was the subject's score on each of the subtests of the Parental Attachment Questionnaire, developed by Maureen Kenny. It is believed that the pregnant/parenting adolescents will score lower on all of the attachment subscales for both their mother and father, than comparable adolescents who are not pregnant or parenting. The belief is that poor parental attachments are often associated with risky behaviors that may lead to becoming pregnant.

This study looks to help practitioners better understand the relationship between control orientation, perceived parental attachment, and adolescent parenting. In terms of scope, this study will be limited to adolescents attending one of two high schools in suburban St. Louis, Missouri. Nevertheless, the results may help therapists working with adolescent clients incorporate the knowledge about control orientation and family therapy components in to their interventions. Also, the findings could contribute to research investigating the antecedents of adolescent pregnancy. Eventually, this will

help practitioners better serve their teenage clientele, and hopefully increase the effectiveness of adolescent pregnancy prevention programs.

Review of the Literature

Locus of Control and Adolescent Pregnancy

The development of the locus of control theory

The seeds of the theory of locus of control began in 1941 when an article, published by Miller and Dollard, suggested that human beings not only learn by direct experience of reinforcements, but also by observing and modeling. Albert Bandura expanded upon these ideas in his work throughout the late sixties and early seventies. Bandura's theory is what most people commonly refer to as Social Learning theory. Bandura stressed that when individuals learn, they not only observe and model another person's behaviors, but they also watch that person's attitudes and emotional reactions (Kearsley, 1994 -- 2000). Bandura once said,

> Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them of what to do. Fortunately, most human behavior is learned observationally through modeling. From observing others, one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action (Kearsley, 1994 -- 2000).

Bandura's theory differs most prominently from Dollard and Miller, in that Bandura incorporated attention, memory, and motivation as factors that influence learned behaviors (Kearsley, 1994 -- 2000).

Another social learning theorist, Julian Rotter, incorporated Bandura's ideas into his own construct. Rotter (as cited in Marks, 1998) was interested in investigating why some people changed behaviors more quickly than others after a negative reinforcement. As a result of such research, Rotter developed the construct of Locus of Control. Rotter theorized a control continuum where at one end was external control and at the opposite end was internal control. Those individuals who were at the external end of the continuum believed that life events were out of their control. Things happened as a result of luck, chance, fate, or factors outside (external) the individual. At the opposite end of the spectrum were internally controlled people who believed that events happened as a result of their own actions, choices, or ability. With this theoretical framework, Rotter and his colleagues could begin to predict how easily an individual would change their behavior. Those with an internal control orientation changed their behavior more quickly, because they believed in the connection between their choices and the consequences they produced. Those with an external control orientation were more hesitant to change behavior, because they did not believe that their behavior impacted the reinforcement (Marks, 1998).

Rotter's theory was revolutionary because it was a way for social learning theorists to merge behavioral and cognitive learning theories. It also helped explain some individual differences in learning and behavior change (Marks, 1998).

As a result, there have been a plethora of studies on the locus of control construct and its impact on people's lives. One of the outcomes of so much research is the morphing of Rotter's unidimensional concept into a multidimensional one. In fact, in 1962, Rotter himself conceptualized the external control construct as having four parts: belief that events happen as a result of luck or chance, belief that events occur because of fate, belief that events are controlled by powerful others, and belief that the world is too complicated to be predictable (Marks, 1998).

Hannah Levenson (1981) followed this movement by dividing the external side of her locus of control scale into two parts: control by Powerful Others and control by Luck or Chance. She alleged that beliefs in powerful others yielded different behaviors and thoughts than a belief in chance. In effect, an externality belief in powerful others may be an accurate assessment of certain sociopolitical situations, and not necessarily a sign of pathology. Hence the Levenson's scale may highlight important factors contributing to an external control orientation that the Rotter scale might miss (Marks, 1998).

Adolescence and locus of control

The construct of locus of control has been used to analyze adolescent populations for many years. An internal locus of control has been consistently correlated with many socially positive variables like taking responsibility for one's own actions, demonstrating self-control, and being more autonomous (Lefcourt, 23). Researchers have even investigated adolescent's ability to delay gratification and plan for the future.

In a study by Strickland, sixth grade subjects were given the choice of one lollipop immediately or three lollipops in two weeks. Subjects with an internal control orientation chose the two-week option significantly more often than subjects with an external control (1973). Thus the internals were able to delay gratification in lieu of a greater reward (three lollipops) in the future.

Extrapolating form this an internal locus of control has also been associated with achievement of more abstract goals like grades and school performance. This implies that internals, because they believe their actions impact the future may have a greater ability to plan.

In 1992, Dunn studied the control orientation of 64 at-risk students and a control group of 47 adolescents. The control group was significantly more internally-oriented than the at-risk group. Since the control group believed that their actions impacted their future perhaps they were more able to adapt to the school environment which relies heavily on preparation and planning, than externally oriented students. Again it is important to remember that control orientation doesn't predict school success; this study merely implies that there is a relationship between the two.

Even amongst middle school students, locus of control seems to relate to academic achievement. In 1986, Dunn compared control orientation with scores obtained on the Iowa Test of Basic Skills. He found that there was a moderate relationship between locus of control and achievement test scores.

As control orientation grew more external, achievement scores lowered. (Nunn, 1988).

Finally, career maturity has also been linked with an internal control orientation. A Canadian study compared the scores of over 700 adolescents on the Nowicki-Strickland Locus of Control Scale and the Career Development Inventory. As expected, it was found that high school students with an internal control orientation also had more career maturity. In particular, the variables planning orientation, utilizing resources for exploration and information, and decision making were significantly higher for the internally oriented group than their externally oriented counterparts (Lokan, Boss, Patsula, &Phillip, 1982).

Adolescent birth control and locus of control

Since studies had shown that internally controlled students may have a greater ability to delay gratification and plan for the future (as evidenced by higher academic achievement and career maturity), researchers began to see if these traits are related to control orientation in sexual health as well. Surprisingly, relationships between adolescent birth control and locus of control have been studied with conflicting conclusions.

In 1979, Herold, Goodwin, and Lero examined the relationship between self-esteem, locus of control, and attitudes towards contraception. They found no statistically significant realtionship between locus of control and the three variables: 1) positive attitude towards using birth control pills, 2) use of effective contraception at last intercourse, or 3) consistent use of birth

control. To obtain locus of control, the researchers utilized the Fatalism subscale of Reid and Ware's forced choice I-E scale. This instrument defines fatalism as a belief "that luck, fate, or fortune, rather than hard work, ability, and personal responsibility determine life outcomes." For reasons not clearly explained, the researchers omitted the Social Systems Control subscale stating it was less relevant to their investigation. Nevertheless, the social systems' control or powerful others part of locus of control may be an important key in understanding adolescent sexual behavior.

In 1995, a study conducted by Gerrad and Luus, sought to determine the relationship between control orientation and the subject's perception on how vulnerable they were to pregnancy. Those individuals who were more externally orientated overestimated the protection provided by birth control techniques that were spontaneous: withdrawal and no protection. In other words, methods in which the individual did not have to actively plan for were viewed by externals as more reliable than the methods actually are in reality. This conforms with the theory of the externally-oriented person's worldview. Since they believe consequences are controlled by chance, they might not prepare ahead of time for a sexual encounter by bringing a condom or diaphragm. Then they might overestimate the reliability of the more spontaneous methods because they believe that pregnancy was basically a matter of luck and because these were their preferred methods of birth control. At the same time, the subjects with an external control orientation also underestimated the effectiveness of more planned types of contraception,

namely birth control pills and condoms. This is consistent with the idea that externally oriented females may be less likely to take precautions to avoid pregnancy if left to make decisions on their own because they believe luck or chance will determine whether or not they conceive.

In 1981, Janet Joseph Lieberman, Ph.D. conducted research analyzing the relationship between Locus of Control and birth control knowledge, attitudes, and practices. There was a small, statistically significant, correlation between birth control knowledge and locus of control. Those individuals who were more internal, exhibited a greater knowledge of birth control than those who were externally oriented. There was, however, no significant correlation between locus of control and birth control attitudes or practices. Lieberman hypothesized that if the externally oriented individuals were engaging in intercourse with an internally–oriented person, than perhaps the externally-controlled was following the internally controlled individual's lead of using birth control more consistently. This would account for the discrepancy in knowledge versus practice for externally oriented persons. Most importantly, however, Lieberman suggested further research with an instrument that was more precise in defining the types of externally oriented personalities. The instrument she suggests would be able to tease out the differences between externally-controlled individuals who would be persuaded to follow another person's decision (those who believed their life was influenced by powerful others) versus externally-controlled individuals who would be more adamant with their partner that precautions were useless (those who believed their life

was controlled by fate or luck). The individual who believes strongly in faith or luck, might be able to convince their partner that birth control is irrelevant or attempt it half-heartedly, while the individual who believes that their partner had control over their life might simply follow whatever their partner orders.

Adolescent pregnancy and locus of control

Locus of control has also been used to compare groups of pregnant versus non-pregnant adolescent females. Thompson (1984) compared the locus of control of 15 adolescent mothers and 15 adolescent females who had no children. She found that the mothers were significantly more externally control oriented than their childless counterparts. Thompson used the Rotter's Internal- External Locus of Control Scale.

Morgan and Chapur (1995) took Leiberman's suggestion and used an instrument, the Health Locus of Control Scale, that divided the external control into two parts: Powerful Others and Chance. This is an instrument that measures a subject's control only within the realm of health and recovery. Using this instrument, adolescent females who had a history of pregnancy scored higher than never-pregnant girls on the "Powerful Other" subscale. It is possible that these externally oriented females were leaving their birth control choices up to a powerful other, like a boyfriend.

Female adolescents may not view pregnancy as merely a health issue. Therefore it is important to establish a more broad definition of locus of control and, hence, provide further evidence that a specific locus of control

orientation, primarily Powerful Others control, may be a significant variable in adolescent pregnancy. Thus, the first purpose of this study will be to attempt to establish that adolescent females who are pregnant or parenting will have a more external control orientation on the Powerful Others subscale on a general measure of control orientation, than their childless counterparts.

Attachment and Adolescent Pregnancy

The development of the theory of attachment

The concept of attachment was first articulated by the psychiatrist, Sigmund Freud. The famous doctor postulated that how a child completed certain developmental stages impacted their adjustment in adulthood. These stages were often dominated by unconscious drives (Scharf, 27-29).

From Freud's Drive theory grew Object Relations theory. Object relations refers to the developing bond between an infant and their primary caregiver or "love object," usually the mother. Object Relations theorists did not concentrate on the outside appearance of the relationship, but rather on the child's perception of the relationship. This concentration on the internal process was very different from Freud (Scharf, 37).

Today, Object Relations theory has evolved into Attachment theory. John Bowlby preserved Freud's insight about close relationships by "replacing his [Freud] image of a needy, dependent infant motivated by drive reduction with one of a sophisticated, competence-motivated infant using its primary caregiver as a secure base from which to explore, and, when necessary, as a haven of safety and a source of comfort (Waters & Cummings,

2000)." As a result, Bowlby presented the term *attachment* to mean specifically the forming of this secure base between the infant and the mother, as well as the bond between adults (Waters & Cummings, 2000).

Ainsworth, one of the leading Attachment theory researchers, noted three separate patterns of mother-infant attachment: secure, ambivalent, and avoidant. A secure attachment is one in which an infant may be disturbed when the mother leaves, but happily greets the mother upon her return. An ambivalent attachment is where the infant becomes distressed when the mother leaves and remains so. The last attachment, avoidant, is where the infant seems independent of the mother and doesn't care if she leaves or returns (Scharf, 70).

As a consequence of Ainsworth and Bowlby's focus on attachment during infancy, there is far less understanding of the impact of attachment on relationships later in life. Nevertheless, a recent report by McCormick and Kennedy (1993), suggests that the quality of attachment remains similar over time. In a study of 218 subjects, attachment classifications that were defined in childhood were comparable to those given when the children were adolescents, despite major life changes (divorce, remarriage, long-term separations). The fact that these relationships remained stable over time contributes to the robustness of the theory of attachment.

Attachment and adolescent psychological adjustment

Many researchers have chosen to investigate the relationship between adolescent attachment with their parents and the construct of self-esteem, or

psychological well-being. Most studies support the hypothesis that secure attachment to parents is positively related to healthy psychological adjustment. Conversely, weak parental attachment relationships result in psychological difficulties.

For example, in the late seventies, Burke and Weir (1978, 1979) studied adolescents and their relationships with their parents. At one point in the investigation, adolescents were asked to rate their satisfaction with help obtained from their parents. Adolescents who were satisfied with parental assistance were also shown to have better self-esteem than their dissatisfied counterparts.

The link between positive parental relationships and adolescent psychological well-being was again confirmed in a study by Greenburg, Seigel, and Leitch (1982).The results of this study stated that the quality of perceived parental attachment was considered significantly related to adolescent well-being. The adolescents who were identified as having more secure attachments reported higher self-esteem than adolescents with insecure attachments.

In 1990, Armsden and colleagues built on the previous research by investigating the relationship between parental attachment and depression. Their sample consisted of 29 clinically depressed adolescents and 14 nondepressed psychiatric patients which formed a control group. They also included 52 adolescents who were not psychiatric patients and 12 adolescents who had resolved their depression and were no longer symptomatic. In every

group, it was found that the security of parental attachment was negatively related to severity of depression symptoms (Armsden, McCauley, Greenburg, and Burke, 1990).

Like Armsden, Raja, McGee, and Stanton (1994) decided to explore the relationship between adolescent psychological problems and parental bonding. In their research, they used the Anxiety, Depression, Inattention, and Conduct Problem subscales of the Diagnostic Interview Schedule for Children (DISC-C). It was found that occurrence of conduct problems and inattention increased when there were reported lower levels of parental attachment.

The link between parental attachment and adolescent psychological well-being was even further established by the longitudinal study of Warren, Huston, Egeland, and Sroufe published in 1997. In this study, approximately 172 infants were identified using the Ainsworth's Strange Situation Procedure. Then these same children were given the Schedule for Affective Disorders and Schizophrenia for School-Age Children when they reached 17.5 years old. Even after multiple regression analysis, anxious/resistant attachments seemed to predict anxiety disorders in children and adolescents. This study seems to demonstrate how attachment problems in infancy may also manifest themselves in adolescence.

The connection between parental attachment and well-being is not just an American phenomenon. It has been demonstrated in several international studies as well. Over 800 Israeli adolescents participated in a study of parental bonding and mental health. It was shown that teenagers that reported a secure

attachment with their parents had less distress, better well-being, and more social support. On the contrary, those who described an affectionless, controlling relationship with their parents had the highest scores on the Brief Symptom Inventory (BSI) and the lowest on the General Well-Being (GWB) and the Perceived Social Support scale (PSS) (Canetti & Bachar, 1997).

New Zealand researchers found similar results in their 1994 study. In a survey of over 400 New Zealand adolescents, it was found that the subjects' perception of their parents' commitment to them, significantly impacted the subjects' self-esteem and coping abilities (Paterson, Pryor, & Field, 1994). As a result of these studies, it seems that a positive relationship between parental attachment and psychological well-being truly exists.

Attachment and risky behavior

Not only is perceived parental attachment positively associated with psychological well-being, but also with behavior. Researchers have tried to define the link between parental attachment and risky behaviors like suicide, antisocial behavior, eating disorders, alcohol abuse, and even sexual behavior.

Two recent studies have reported on the relationship between suicidal behavior and parental attachment. In the first study, a team of New Zealand researchers sought to create a risk profile for adolescent suicidal behavior. After their investigation, they concluded that poor parental attachment was definitely one of the traits of an adolescent who was most at risk of suicidal behavior (Fergusson, Woodward, & Horwood, 2000). In fact, the other study, authored by Lipschitz and her colleagues in 1999, suggested that emotional

neglect may be a more powerful predictor of suicidal behavior than physical neglect or even physical or emotional abuse. Granted this study focused only on hospitalized youth, but the findings are intriguing nonetheless.

In addition to suicide, antisocial behavior has also been associated with poor parental attachment. Marcus and Betzer (1996) studied 163 middle school students. They found that there was a negative relationship between antisocial behaviors and parental attachment. The Attachment to Father factor was actually the strongest predictor of antisocial behavior where insecure attachments coincided with a high incidence of antisocial behavior.

Even eating disorders have shown to be negatively related to parental attachment. In 1992, Rhodes and Kroger interviewed 20 eating disordered female adolescents and 20 symptom-free female adolescents. The eating disordered group was found to have significantly higher levels of separation anxiety than their symptom-free counterparts. This gives further credence to the possible relationship between parental bonding and risky behaviors.

Alcohol abuse, as well, has been found to negatively correlate with parental attachment. In a study based in Texas, adolescents who were more connected with their parents felt less stressed and were less likely to use alcohol than their insecurely attached counterparts. When a group of younger children was studied, the relationship between parental attachment and alcohol abuse was even more significant. The lower the level of attachment the higher the rate of alcohol abuse (Beer & Bray, 1999).

Finally, risky sexual activity was also correlated with perceived parental attachment. Adolescents who were raised in a family where they felt they were able to grow and were allowed to balance emotional closeness with individuation, were better equipped to resist peer pressure to have sexual intercourse (Barnett, Papini, & Gbur, 1991). Furthermore, adolescents who perceived that they didn't communicate well with their parents and had little support from their parents were more likely to become sexually active at a younger age (Casper, 1990). Early sexual behavior may place these adolescents at increased risk for pregnancy. Pregnant adolescents reported beginning sexual activity at an earlier age than nonpregnant adolescents in Morgan & Chapar's 1995 study. Since Casper found that early sexual behavior was linked to insecure parental attachment and that early sexual behavior seems to be a differentiating variable between pregnant and non pregnant adolescents, this would suggest that there might be a relationship between low parental attachment and adolescent pregnancy as well.

Attachment and adolescent pregnancy

At first glance at the available research, it may seem that parental attachment has little to do with adolescent pregnancy status. Evidence of this is seen in the 1998 study by Connelly which reports no significant differences in perceived parental support between 58 pregnant and 91 nonpregnant adolescent females. However, on closer evaluation, it seems that racial differences may be a factor in many studies regarding attachment and adolescent pregnancy.

In a study by Barth, Schinke, and Maxwell (1983), African American parenting or pregnant adolescents reported more social support than Caucasian parenting or pregnant adolescents. Also, in a study of 79 white pregnant adolescents, 76 Mexican-American pregnant adolescents, and 44 African-American pregnant adolescents, it was found that the African-American subjects reported a good mother-daughter relationship more often than wither Caucasians or Mexican Americans. In fact, Caucasian adolescents most frequently reported problems at home: identified psychiatric illness in family members, death of a parent, or running away from home. (Felice, Shragg, James, & Maxwell, 1987). Thus, the experience of parental attachment of pregnant adolescents perceive parental attachment may differ depending on their ethnicity.

In contrast to the previous studies, Ralph, Lochman, and Thomas (1984), focused on the psychosocial characteristics of pregnant and non-pregnant African-American teenagers, instead of a racially mixed sample. They found that there were no significant differences in psychosocial adjustment variables, including parental attachment, between the two groups. The authors suggested that in the population they were studying (African American, low-income) adolescent pregnancy was not considered a deviant behavior. In fact, most of the young women felt comfortable with their families, and the authors suggest that perhaps they were following the example of their role models. The subjects, as well as their families, might have seen them as fulfilling their life role: becoming a mother.

In 1996 Kaplan found, contrary to the previous study, that adolescent pregnancy may stigmatize African-American families as much as those of other ethnicities. All of the 22 pregnant adolescents interviewed claimed that their mother had not been supportive emotionally. Nine of the mothers were also interviewed and stated that their daughters' pregnancy went against their moral beliefs as well as damaging their reputation in the community. Kaplan suggested that within the African-American community, socio-economic background may impact the social stigma of pregnancy as much as race.

More research has focused on the African-American community and fewer studies have addressed the Caucasian population. Therefore this study will focus on Caucasian adolescents and their perceived parental attachment.

Adolescent pregnancy and mother-daughter relationships

Although there are few studies on parental attachment and adolescent pregnancy, even fewer seek to investigate the mother-daughter relationship of pregnant/parenting adolescents as compared to their nonpregnant or parenting counterparts. Those studies that have been published produced mixed results; some studies show statistically significant differences while others don't.

In 1984, Olson and Worobey compared the mother-daughter relationship of pregnant and nonpregnant female adolescents. They found that pregnant adolescents reported less affection, fewer demands, and more rejection from their mother than the comparison group. As a result of such robust findings, Worobey decided to replicate the study.

However, the next study by Townsend and Worobey (1987) showed no significant differences in attachment amongst pregnant and nonpregnant adolescents. The authors were unable to find a specific cause for the discrepancy. On closer examination, one notes that of the 171 questionnaires distributed in the second study, only 76 (44%) were returned with both the daughter and mothers' responses. There was little mention of the group who did not return the studies other than mentioning many belonged to racial minority groups. Again, this researcher questions whether persons who are experiencing stress in their relationship would be likely to volunteer or return such a questionnaire.

In another study by Rogers and Lee (1992), again no statistical difference was found in perceived parental attachment amongst African-American pregnant and nonpregnant adolescent females. Nevertheless, it seems important to note that a yoke-sampling technique was used to obtain the subjects for this study. It seems highly likely that young women who did not have a strong relationship with their mother would not volunteer for this study, especially if they had to bring a survey to their mother.

Adolescent pregnancy and father-daughter relationships

Studies investigating the father-daughter relationship of pregnant/parenting female adolescents are practically non-existent. However, in a study by Youniss and Ketterlinuss (1987), there was no significant difference between how sons and daughters reported how their mothers knew them. However, daughters reported that their fathers knew them significantly

less than their mothers. Therefore it is important to study daughters' relationships with their mothers separately from their relationship with their fathers.

In a study by Johnson, Shulman, and Collins (1991), adolescents reported that their mothers were more supportive or tolerant of changed behavior or difficult relationships than their father. However, there has been little focus on father-daughter relationships and how this relationship pertains to adolescent pregnancy.

It seems that the attachment between father and daughter does relate to some degree to the adolescent daughter's pregnancy. In a study by Landry and colleagues (1983) of fourteen pregnant adolescents, the pregnant group reported significantly poorer father-daughter relationships than their nonpregnant counterparts. For the pregnant group, many of the fathers were either missing or simply ineffective. In 1987, Moss reported that pregnant adolescents who often experienced problems in their relationship with their father, neglected to seek health-related services, including birth control.

In a survey of 341 pregnant/parenting female adolescents, 70% rated their relationship with their mother as "good." In contrast, only 45% rated their relationship with their father as "good." A positive father-daughter relationship was found to be significantly positively correlated with self-esteem for this group. Nevertheless, it is difficult to interpret the significance of these findings as there was no comparison group of nonpregnant female adolescents (Rodriguez and Moore, 1995).

The second purpose of this study hopes to build on previous research dealing with mother-daughter attachment and father-daughter attachment and its relationship with adolescent pregnancy/parenting. It is believed that pregnant/parenting subjects will score lower on all of the attachment subscales for both mother and father than the nonpregnant/parenting group.

Method

Participants

The population for this study consisted of 58 adolescent females: 29 who were pregnant/parenting and 29 who were neither pregnant nor parenting. All of the pregnant/parenting adolescents were participants in a school-based support group. The purpose of the group was to provide support and guidance, so that the adolescents might have a better chance of graduating high school and obtaining a financially rewarding job. Participation in the support group was voluntary. Subjects were recruited from study hall classes. The mean age of the pregnant/parenting group was 15 years old with a standard deviation of 1.45. The mean age of the nonpregnant/parenting group was 15 with a standard deviation of 1.05. The groups were 100% Caucasian and from a middle to lower socioeconomic background. Both groups had similar GPAs: mean score for the pregnant/parenting group was 2.05 with a standard deviation of .7322 and the mean score for the nonpregnant/parenting group was 2.24 with a standard deviation of .8417. All subjects were currently enrolled in two high schools in the suburban St. Louis, Missouri, area.

Instruments

There were two instruments used in this study: Levenson's IPC Subscales and The Parental Attachment Questionnaire.

The Internal, Powerful Others, and Chance scales, developed by Hannah Levenson, are an extension of Rotter's Locus of Control scale. Like Rotter's, the IPC scales measures control orientation. The Internality subscale

measures the amount of control a person feels they have over life events. The difference between the two measures, lies in the External control orientation subscales. Levenson divided Externality into two subscales: Powerful Others and Chance. The Powerful Others subscale measures the extent to which an individual believes that other persons control events in his/her life. The Chance scale ascertains how much an individual believes that events occur as a result of chance or luck. The IPC scale is more appropriate for this study because of the Powerful Others subscale. Teenage moms are minors and often involved with older men; thus, it is a reality that to an extent, other people are responsible for their life events. Therefore an external control orientation isn't necessarily a sign of pathology; it's a reality. Also, the IPC scales are less gender-biased than Rotter's Locus of Control scale (Lefourt and Levenson, 1981).

The IPC is a short, simple scale. It has 24 statements with six possible answers: +3 strongly agree, +2 somewhat agree, +1 slightly agree, -1 slightly disagree, -2 somewhat disagree, -3 strongly disagree. There is no training necessary to administer the instrument and scoring is easy. One need only add up the points for the items of each scale. Then, the number 24 is added to these sums. Scores range from 0 to 48. Examinees will receive a score for each subscale. High scores on the Internality subscale suggest that the subject expects to have control over his/her life. A high score on the Powerful Others subscale indicates that the subject believes someone else has control over

his/her life. Finally, a high score on the Chance subscale indicates that the subject believes life events occur as a result of luck or chance (Lefcourt, 232).

Research on the IPC scales has used a wide variety of samples. These groups include psychiatric patients, working adults, and reformatory prisoners (Lefcourt, 232). Nevertheless, the measure has been most extensively used with undergraduate students. This resembles the sample for this study to some extent in that both groups are adolescents and attending school.

The reliability and validity values for this instrument are adequate. With regard to internal consistency, the Kuder-Richardson reliabilities were .64, .77, and .78 for the Internality, Powerful Others and Chance subscales, respectively, when tested on a student sample of 152. After a one-week interval, test-retest reliability was determined to be between .60 and .79. After seven weeks, the test-retest reliability range was .66 and.73. Convergent validity data show that the P and C subscales correlate with each other from .41 to .60. The opposite is true for the relationship between the I and the P and C subscales where the correlation ranges from -.25 and .19. None of the three correlate with the Crowne-Marlowe Social Desirability scale (Lefcourt, 233).

The Parental Attachment Questionnaire, by Maureen Kenny, was created to ascertain the perceptions of young people about their relationship with their parents. The questionnaire is broken down into three subscales: Affective Quality of Attachment (23 items), Parental Fostering of Autonomy (14 items), and Parental Role in Providing Emotional Support (13 items). The three subscales are based on Ainsworth's idea of attachment as "an enduring,

affective bond, which serves as a secure base in providing emotional support and in fostering autonomy and mastery of the environment" (Kenny, 1987).

This instrument can be easily administered to a group. Subjects respond to the 55 statements. using a Likert scale: 1- not at all, 2- somewhat, 3 – a moderate amount, 4 – quite a bit, 5 – very much. The subject will complete the questionnaire first for the relationship with her mother. Then she will respond to an identical questionnaire for her father. This is to determine if there are differences between the attachment with the mother and with the father (Kenny, 1987).

The PAQ was normed on college freshmen. Nevertheless, it has been used successfully with adolescents as well, which makes it appropriate for this study.

Reliability and validity statistics are good for the Parental Attachment Questionnaire. Using a two-week interval, test-retest reliability was .92. For female college students, internal consistency was determined to be Cronbach alpha of .95 and for 8th grade females it was .93 (Kenny, 1987).

The PAQ was compared with the Moos Family Environment Scales to obtain evidence of construct validity. Scales that were expected to correlate did; those that were not expected to correlate, did not. Also, positive significant correlations were obtained between the PAQ and the Inventory for Peer and Parental Attachment (IPPA) as well as on the cohesion subscale of the Family Adaptability and Cohesion Evaluation Scale (FACES-III). This is further proof of construct validity. When the PAQ was correlated with the

Marlowe Crowne Social Desirability Scale, no statistical significance was found for the Affective Quality of Attachment nor for the Parental Role in Providing Emotional Support subscales. However, Parental Fostering of Autonomy did show a statistically significant correlation of .22, $p<.04$ (Kenny, 1987).

Procedure

The design for this study was a causal-comparative study. Two groups were examined: adolescent females who are currently pregnant or parenting and adolescent females who are not currently pregnant or parenting. These groups were compared on locus of control and perceived current parental attachment. This study attempted to find a relationship between these variables and provide further justification for future studies investigating the antecedents to adolescent pregnancy.

To obtain the sample, the researcher contacted the coordinator of a support group for pregnant and parenting teens. The coordinator contacted a colleague at another area high school who had a similar group. After both coordinators agreed to let the researchers recruit their students to participate, parental permission forms were distributed to the pregnant and/or parenting adolescents.

For the nonpregnant/nonparenting group, volunteers were sought from study hall classes who were also required to obtain parental permission. Only adolescent females who were not currently parenting or pregnant were used

for the control group. Every attempt was made to ensure that these subjects matched those of the parenting group in their ages and GPA.

The researcher distributed the Parental Attachment Questionnaire and the Locus of Control subscales to the parenting teens during their regularly scheduled group time. The subjects were informed that their answers were completely confidential and in no way impacted their status or participation in the group. Once finished, the subjects slipped their questionnaires into an envelope located at the back of the room. This was to further encourage the subjects to answer the questions honestly and to ensure anonymity

The non-parenting teens were notified that they had been chosen to participate in the study and of the administration date. While the questionnaires were distributed to the parenting group, the non-parenting teens came to the guidance office during their study hall time. The researcher informed the subjects that their answers were completely confidential and in no way impacted their school status. The subjects were allowed to answer the questionnaires in an empty conference room. Once finished, they slipped the questionnaires in to a folder already placed in the conference room. Again, this was to further encourage the subjects to answer the questions honestly and to ensure anonymity.

After all the questionnaires were completed and returned, the researcher analyzed the data using Independent sample t-tests. This statistical procedure was utilized because the researcher was comparing two

independent groups on the same variable. The pregnant /parenting and nonpregnant/parenting groups were compared on the following variables: (i) Internality, (ii) Chance, (iii) Powerful Others, (iv) Affective Quality of Attachment with Mother, (v) Maternal Fostering of Autonomy, (vi) Maternal Role in Providing Support, (vii) Affective Quality of Attachment with Father, (viii) Paternal Fostering of Autonomy, and (ix) Paternal Role in Providing Support.

Results

The first hypothesis being examined was that pregnant and parenting adolescent females will report a significantly larger degree of external control on the Powerful Others subscale than their childless counterparts. A series of independent t-tests were conducted. The results suggested that there were no significant differences between the two groups on any of the Locus of Control subscales. The results are presented in Table 1.

TABLE 1: Comparison of mean scores on the Levenson's Multidimensional Locus of Control subscales.

Subscale	Group	M	SD	t	p
Internality					
	Not pregnant/parenting	34.52	7.18	1.196	.237
	Pregnant or Parenting	32.17	7.74		
Powerful Others					
	Not pregnant/parenting	20.72	11.50	.007	.484
	Pregnant or Parenting	22.48	6.90		
Chance					
	Not pregnant/parenting	20.69	12.64	-1.738	.090
	Pregnant or Parenting	25.24	6.24		

The second hypothesis being examined was that pregnant or parenting adolescent females would report a significantly lower degree of perceived maternal attachment by scoring lower than their childless counterparts on each subscale. The results suggested that there were no significant differences between the two groups on any of the Parental Attachment Questionnaire subscales. The results are presented in Table 2.

TABLE 2: Comparison of Maternal mean scores on Parental Attachment Questionnaire

Subscale	Group	M	SD	t	p
Affective Quality of Attachment with Mother					
	Not pregnant/parenting	73.93	23.34	.861	.806
	Pregnant or Parenting	72.24	28.56		
Maternal Fostering of Autonomy					
	Not pregnant/parenting	39.52	12.28	.592	.577
	Pregnant or Parenting	37.48	15.17		
Maternal Role in Providing Emotional Support					
	Not pregnant/parenting	40.59	12.08	.162	.374
	Pregnant or Parenting	37.28	15.80		

The third hypothesis being examined was that pregnant or parenting adolescent females would report a significantly lower degree of perceived paternal attachment by scoring lower than their childless counterparts on each subscale. The results suggested that there were no significant differences between the two groups on any of the Parental Attachment Questionnaire subscales. The results are presented in Table 3.

TABLE 3: Comparison of mean Paternal scores on Parental Attachment Questionnaire

Subscale	Group	M	SD	t	p
Affective Quality of Attachment with Father					
	Not pregnant/parenting	66.76	31.78	1.491	.142
	Pregnant or Parenting	54.07	33.02		
Paternal Fostering of Autonomy					
	Not pregnant/parenting	37.41	16.38	.853	.301
	Pregnant or Parenting	32.69	18.06		
Paternal Role in Providing Emotional Support					
	Not pregnant/parenting	35.59	16.16	1.213	.230
	Pregnant or Parenting	30.28	17.16		

Discussion

The results of this investigation did not establish a significant difference between pregnant/parenting adolescents and their childless counterparts in control orientation or perceived parental attachment.

It was expected that pregnant/parenting adolescents would display more of a belief in control by Powerful Others than nonpregnant/parenting adolescents. This hypothesis was not supported. This contradicts the findings established by Morgan and Chapur in 1995. The difference may lie in the fact that this study used Levenson's instrument to measure locus of control while Morgan and Chapur used the Health Locus of Control instrument. Perhaps pregnant/parenting adolescents feel that Powerful Others may impact their health and recovery, but not generalize this belief into other areas of their life.

Also, there is a possibility that selection bias could be a threat to the validity. All of the pregnant/parenting adolescents in this study were attending school-based support groups. Participation in the support groups was voluntary. These young women were aware that the purpose of the groups was to provide them with guidance and information, so that they could earn their high school diploma. Since the subjects chose to participate in something that was geared to help them graduate, then they probably believed that they possessed some control over whether or not they would finish high school; graduation wasn't a result of "chance" or a "powerful other." Furthermore, after the study was completed, the researcher discovered that personal empowerment had been the topics for several group meetings earlier in the

year. This may have impacted control orientation scores as well. So, there is the possibility that the nonrandom sample might have been more internally oriented than if the sample had included pregnant and parenting adolescents who were not members of the group.

Furthermore, the locus of control instrument was last in the packet given to each subject. Due to weariness, perhaps subjects in this study were not as thoughtful in answering the questions, as those in the Morgan and Chapur investigation. Nevertheless, more research needs to be conducted to ascertain whether or not this study is representative of control beliefs of parenting/pregnant adolescents.

It was also expected that pregnant/parenting adolescents would present lower levels of maternal attachment than nonpregnant/parenting adolescents. This investigation did not support that hypothesis. These findings support the 1987 study by Townsend and Worobey that no significant differences in maternal attachment exist amongst pregnant and nonpregnant adolescents. However, both the current study and Worobey's 1987 investigation contradict findings published by Olson and Worobey in 1984, which suggested a significant difference in maternal attachment. It is unclear exactly why this contradiction exists. Again, one reason might have been the sample selected. Since the pregnant/parenting adolescents were still in school, they might have more supportive parents than the general pregnant or parenting adolescent population. Thus, further research needs to be conducted to be certain that there is no difference in maternal attachment.

Similarly to maternal attachment, it was hypothesized that pregnant/parenting adolescents would present lower levels of paternal attachment than nonpregnant/parenting adolescents. Again no significant differences were found. As this was a preliminary investigation more research needs to be conducted to confirm these findings.

Future researchers should try to obtain a larger sample size preferably with adolescent females who have not received services (such as a support group) that may have impacted their control orientation or parental attachment. A more representative sample may make relationships more obvious or at least further prove that no relationship exists. Ideally this study should be conducted as a longitudinal study. Control orientation and parental attachment should be assessed and then the subjects followed to see if any become pregnant. Then the data should be compared to see if locus of control and perceived parental attachment are adequate predictors of adolescent pregnancy.

Until further research is conducted, practitioners who serve pregnant/parenting teens should not assume that their clients have an external control orientation or poor relationships with their parents. Although society may classify adolescent pregnancy and parenting as another social problem like substance abuse or antisocial behavior, it is not. Unlike the other social concerns adolescent pregnancy cannot be directly linked with the lack of parental attachment or an external control orientation.

Hence, this study adds to the evidence that suggests that adolescents who are pregnant and parenting are not very different from their childless counterparts. Practitioners should understand this when designing programs to assist this population. They should question the use of techniques and strategies that are generally used for "troubled youth." Mental health professionals might do well to focus interventions on more practical topics like stress or time management before assuming that clients need to be "empowered" or resolve family relationships.

In conclusion, like the issue of teenage pregnancy, variables associated with this phenomenon are very complicated. Further research needs to be conducted to conclusively ascertain the nature of the relationship between adolescent pregnancy, control orientation and perceived parental attachment. In the meantime, it is important for therapists to view their pregnant or parenting adolescent clients as individuals and meet their needs accordingly: not to make assumptions about needs based on their client's parenting status.

References

Armsden, Gay C; McCauley, Elizabeth; Greenberg, Mark T; Burke, Patrick M; et al. (1990). Parent and peer attachment in early adolescent depression. Journal of Abnormal Child Psychology,18, 683-697.

Barnett, J., Papini, D., & Gbur, E. (1991). Familial correlates of sexually active pregnant and nonpregnant adolescents. Adolescence,26, 457 – 472.

Beer, P., & Bray, J. (1999). Adolescent individuation and alcohol use. Journal of Studies on Alcohol, 13, 52-62.

Barth, R, Schimke, S, & Maxwell, J. (1983). Psychosocial correlates of teenage motherhood. Journal of Youth and Adolescence, 12, 471-487.

Burke, R, & Weir, T. (1978). Benefits to adolescents of informal helping relationships with their parents and peers. Psychological Reports, 42, 1175-1184.

Canetti, L, & Bachar, E. (1997). Parental bonding and mental health in adolescence. Adolescence, 32, 381-395.

Casper, L. (1990). Does family interaction prevent adolescent pregnancy? Family Planning Perspectives, 22l, 109 – 114.

Center for Disease Control. (1999). *Teen Pregnancy*, [Online]. Available: http://www.cdc.gov/nccdphp/teen.htm [2000. February 8].

Chandler, T., Wolf, F., Cook, B., & Dugovics, D. (1980). Parental correlates of locus of control in fifth graders: An attempt at experimentation in the home. Merrill-Palmer Quarterly, 26, 183 – 195.

Chubb, N, & Fertman, C. (1997). Adolescent self-esteem and locus of control: a longitudinal study of gender and age differences. Adolescence, 32, 113.

Crandall, V., & Crandall, B. (1983). Maternal and childhood behaviors as antecedents of internal-external control perceptions in young adulthood. In H.M. Lefcourt (Ed.) Research with the locus of control construct: Developments and social problems (Vol. 2) (pp.53 -- 103). New York: Academic Press.

Connelly, C. (1998). Hopefulness, self-esteem, and perceived social support among pregnant and nonpregnant adolescents. Western Journal of Nursing Research, 20, 195-209.

Ekstrom, R., Goertz, M., Pollack, J., & Rock, D. (1986). Who drops out of high school and why? Findings from a national study. Teachers College Record, 87, 356 – 373.

Felice, M, Shragg, G, James, M, & Hollingsworth, D. (1987). Psychosocial aspects of Mexican-American, White, and Black teenage pregnancy. Journal of Adolescent Health Care, 8, 330-335.

Fergusson, D, Woodward, L, & Horwood, L. (2000). Risk factors and life processes associated with the onset of suicidal behaviour during adolescence and early adulthood. Psychological Medicine,30, 23-39.

Gerrard, M, & Luus, C A. (1995). Judgements of vulnerability to pregnanacy: The role of risk factors and individual differences. Personality and Social Psychology Bulletin, 21, 160.

Greenburg, M, Siegel, J, & Leitch, C. (1983). The nature and importance of attachment relationships to parents and peers during adolescence. Journal of Youth and Adolescence, 12, 373-386.

Herold, E, Goodwin, M S, & Lero, D S. (1979). Self-esteem, locus of control, and adolescent contraception. Journal of Psychology, 101, 83-88.

Johnson, B., Shulman, S., & Collins, W. (1991). Systemic patterns of parenting as reported by adolescents: Developmental differences and implications for psychological outcomes. Journal of Adolescent Research, 6, 285 –286.

Kaplan, E. (1996). Black teenage mothers and their mothers: The impact of adolescent childbearing on daughters' relations with mothers. Social Problems, 43, 427-443.

Kearsley, G. (1994 – 2000). *Explorations in learning and instruction: The theory in to practice database* [Online]. Available: http://www.gwu/~tip/index.html [2000, February 9].

Kenny, M, Lomax, R, & Brabeck, M. (1998). Longitudinal pathways linking adolescent reports of maternal and paternal attachments to psychological well-being. Journal of Early Adolescence, 18, 221-243.

Kenny, M. (1987). The extent and function of parental attachment among first-year college students. Journal of Youth and Adolescence, 16 (1), 17-29.

Landy, S. (1983). Teenage pregnancy: Family syndrome? Adolescence, (71), 679-694.

Lefcourt, H. (1984). Research with the locus of control construct. New York : Academic Press.

Lefcourt, H., & Levenson, H. (1981). Differentiating among internality, powerful others, and chance. Research with the Locus of Control Construct, 1, 15-63.

Lieberman, J. (1981). Locus of control as related to birth control knowledge, attitudes, and practices. Adolescence, 16, 1-10.

Lipschitz, D, Winegar, R, Nicolaou, A, Hartnick, E, Wolfson, M, & Southwick, S. (1999). Perceived abuse and neglect as risk factors for suicidal behavior in adolescent inpatients. Journal of Nervous & Mental Disease,7, 32-39.

Lokan, J, Boss, M, and Patsula, P. (1982). A study of vocational maturity during adolescence and locus of control. Journal of Vocational Behavior, 20, 331-342.

Marcus, R, & Betzer, P. (1996). Attachment and antisocial behavior in early adolescence. Journal of Early Adolescence,16, 229-248.

Marks, L. (1998). Deconstructing locus of control: Implications for practitioners. Journal of Counseling & Development, 76, Issue 3, 251-261.

Maton, K, Teti, D, Corns, K, Vieira-Baker, C, & Lavine, J. (1996). Cultural specificity of support sources, correlates and contexts: Three studies of African-American and Caucasian youth. American Journal of Community Psychology, 24, 551-587.

McCormick, C., & Kennedy, J. (1994). Parent-child attachment working models and self-esteem in adolescence. Journal of Youth and Adolescence, 23, 1-17.

Miller, N., & Dollard, J. (1941). Social Learning and Imitation. New Haven, NJ: Yale University Press.

Morgan, C., & Chapur, G. (1995). Psychosocail variables associated with teenage pregnancy. Adolescence, 30, 277-290.

Moss, N. (1987). Effects of father/daughter contact on use of pregnancy services by Mexican, Mexican-American, and Anglo adolescents. Journal of Adolescent Health Care, 8, 419 –424.

Nowicki, S. Jr., & Duke, M. (1983). The Nowicki –Strickland life span locus of control scales: Construct validation. IN H.M. Lefcourt (Ed.) Research with the locus of control construct: Developments and social problems (Vol. 2) (pp.9-51). New York: Academic Press.

Nowicki, S. Jr., & Schneewind, K. (1982). Relations of family climate variables to locus of control in German and American students. The Journal of Genetic Psychology, 141, 277 – 286.

Nunn, Gerald D; Parish, Thomas S. (1992).The psychosocial characteristics of at-risk high school students. Adolescence, 27, 435-440.

Nunn, G. (1988). Concurrent validity between the Nowicki-Strickland locus of control scale and the state-trait anxiety inventory for children. Educational and Psychological Measurement, 48, 435 – 438.

Olson, C., & Worobey, J. (1984). Perceived mother-daughter relations in a pregnant and non-pregnant adolescent sample. Adolescence, 19, 781 -- 794.

Paterson, J., Pryor, J.,& Field, J. (1995). Adolescent attachment to parents and freinds in relaiton to aspects of self-esteem. Journal of Youth and Adolescence, 24, 365-376.

Raja, S., McGee, R., & Stanton, W R. (1994). Perceived attachments to parents and peers and psychological well-being in adolescence. Journal of Youth and Adolescence, 21, 471-485.

Ralph, N., Lochman, J., & Thomas, T. (1984). Psychosocial characteristics of pregnant and nulliparous adolescents. Adolescence, 19, 283-294.

Rhodes, B, & Kroger, J. (1992). Parental bonding and separation-individuation difficulties among late adolescent eating disordered women. Child Psychiatry & Human Development, 22, 249-263.

Rodriguez, C., & Moore, N. (1995). Perceptions of pregnanat/parenting teens: reframing issues for an integrated approach to pregnancy problems. Adolescence, 30, 685-707.

Rogers, E., & Lee, S. (1992). A comparison of the perceptions of the mother-daughter relationship of Black pregnant and nonpregnant teenagers. Adolescence, 27, 555-564.

Scharf, R. (1996). Theories of psychotherapy and counseling. Pacific Grove: CA: Brooks/Cole Publishing Company.

Staton, M., Leukefeld, C., Logan, T. , Zimmerman, R. , Lynam, D., Milich, R., Marting, C., McClanahan, K., & Clayton, R. (1999). Risky sex behavior and substance use among young adults. Health & Social Work, 24, 147 – 153.

Strickland, B. (1973). Delay of gratification and internal locus of control in children. Journal of Consulting and Clinical Psychology, 40, 388.

Thompson, Rosemary A.(1984). The critical needs of the adolescent unwed mother. School Counselor, 31, 1984, 460-466.

Townsend, J., & Worobey, J. (1987). Mother and daughter perceptions of their relationship: The influence of adolescent preganacy status. Adolescence, 22, 487-496.

Ventura, S., Curtin, S., & Mathews, T J. (1998). Teenage Births in the United States: National and state trends, 1990-96. National Vital Statistics System, Hyattsville, Maryland: National Center for Health Statistics.

Visher, Sally. (1986). The relationship of **locus** of **control** and contraception use in the adolescent population. Journal of Adolescent Health Care. Vol 7, 183-186.

Waters, E., & Cummings, E. (2000). A secure base from which to explore close relationships. Child Devleopment, Issue 2.

Warren, S, Huston, L, Egeland, B, & Sroufe, L. Child and adolescent anxiety disorders and early attachment. Journal of the American Academy of Child & Adolescent Psychiatry, 36, 637-644.

White, S., & Cummings, M. (1995). Goal setting and control orietnation of pregnant/parenting female adolescents in teh GRADS program. Family & Consumer Sciences Research Journal, 23, 249.

Youniss, J., & Ketterlinus, R. (1987). Communication and connectedness in mother and father adolescent relationships. Journal of Youth and Adolescence, 16, 265-280.