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STRESS, COPING AND EDUCATIONAL OUTCOMES AMONG ADOLESCENT MOTHERS: A LONGITUDINAL CAUSAL MODEL

By

Bianca Lucrecia Guzmán

A DISSERTATION

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ABSTRACT

STRESS, COPING AND EDUCATIONAL OUTCOMES AMONG ADOLESCENT MOTHERS: A LONGITUDINAL CAUSAL MODEL

By

Bianca Lucrecia Guzmán

The present study examined the effectiveness of a longitudinal stress and coping model in predicting the educational outcomes of adolescent mothers. It was part of a larger study that examined the impact of social support, provided by a mentor, for pregnant and parenting teenage women. The relationships between stress, coping, social support, self-esteem and educational outcomes were examined using Path analysis with data collected from 138 pregnant adolescents at three time periods: 4 months prenatal (T1), 1 month postnatal (T2) and educational outcomes were examined 1 year after the T1 interview.

Path modeling was used to evaluate the two theories of how social support impacts stress and coping. The buffering hypothesis of social support, which states that social support is most effective in times of stress, was not supported (X^2 = 131.21, df = 45, $p < .05$). The main effect theory of social support which states that social support is beneficial regardless of stress levels, was supported (X^2 = 16.30, df = 29, $p < .05$).

In this model T1 stress had a direct and significant positive effect on T1 coping. The link between social support and coping was positive and the size of the path coefficient was significant. Self-

esteem was also significantly positively related to coping.

The T2 paths indicated that stress postnatally led to significantly more coping efforts postnatally. However, the T2 path between social support and T2 coping was non-significant. This result may reflect that there was a significant change in social support from T1 to T2. At T2, these teens had significantly fewer supporters to help them cope with the stress of parenthood (T1 $\underline{M}$ = 9.84, $\underline{SD}$ = 5.10; T2 $\underline{M}$ = 7.53, $\underline{SD}$ = 3.91). The relationship between T2 self-esteem and T2 coping postnatally was significant and negative; the higher the self-esteem of these young women the less problem-focused coping they were attempting. The path between coping and educational outcomes was significant and negative. Implications of the findings as well as the limitations of the study and directions for future research are discussed.

Para mi compañero de vida, Juan

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In the process of completing this project so many people in my life have made it possible for me to succeed. First of all, I would like to thank the chair of my committee, G. Anne Bogat, for her unwavering support, patience, and belief in me. I would not have completed this project without her constant encouragement and professional guidance.

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Most important of all, I want to thank all of the young mothers that I have had the privilege of working with over the years. All of you have taught me so much about the struggle to be a competent, loving parent in a society that does not support or encourage motherhood. I have learned from you what the meaning of strength, resiliency, and effort really are. All of you continue to inspire me to work towards a better understanding of how to help improve the quality of your lives.

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CHAPTER 1

INTRODUCTION

Nearly one-half of all adolescents in the United States have experienced intercourse by the time they are 17 years of age (Brooks-Gunn & Furstenberg, 1989). The rate of adolescent childbearing is higher in the United States than in any other industrialized nation (Jones et al., 1985; Wilcox, Robbennolt, O'Keeffe, & Pynchon, 1996). Although statistics tend to vary from source to source, it is generally agreed that in the United States over 1 million pregnancies occur to teenage women less than 20 years of age (Roosa, 1991); approximately 500,000 teens will carry their pregnancy to term, 400,000 will elect abortions, and 100,000 will have medical complications and miscarry. Furthermore, there has been an increase in the pregnancy rates of younger women who are between thirteen and fifteen years of age (Robinson & Frank, 1994; Roosa, 1991; Stafford, 1987; Wilcox et al., 1996). This high rate of adolescent childbearing has stimulated widespread concern due to the number of negative consequences that have been ascribed to adolescent pregnancy and motherhood (de Anda et al., 1992).

Pregnancy is a major life event with its attendant physiological changes, and is a stressful period irrespective of whether the experience is viewed as positive or negative (Lazarus & Folkman, 1984). Researchers and theorists with a developmental perspective have characterized adolescent pregnancy as a maturational crisis that can create overwhelming amounts of stress for the adolescent female (Bierman & Streett, 1982); the developmental tasks and expectations of adolescence (biological, cognitive, and social changes) may be changed dramatically, accelerated, delayed, or never fully negotiated (Dunham, Kidwell, Wilson, & 1986; Gilligan, 1991; Hamburg, 1989; Sadler &Catrone, 1983). Pregnant and parenting adolescents are expected to discard immediately the impulsive, unpredictable behavior characteristic of adolescence for behaviors more consistent with adult, maternal roles. As de Anda and her associates comment: "her behavior is now judged by adult standards" (de Anda et al., 1992, p. 95). Adolescent mothers are expected to be prepared to respond to the needs of their infants and carry the full burden of adulthood (Bierman & Streett, 1982), irrespective of their developmental level. Consequently, the new tasks of pregnancy and parenthood become additional stressors that a parenting adolescent may not be prepared to cope with adequately. For example, in a study examining cognitive readiness for pregnant adolescents, it was found that adolescents were less cognitively prepared, experienced more stress in the parenting role, and were less adaptive in their parenting

style when compared to adult mothers (Butler, Rickel, Thomas, & Hendren, 1993).

In addition to stress due to developmental changes, pregnant and parenting teens also experience health-related stress due to pregnancy. Pregnancy related stress for these young women may include high rates of anemia, toxemia, hypertension, and prolonged labor (Camp, Holman, & Ridgway, 1993; Geronimus, 1986, 1987; Marsh & Wirick, 1991; McDonough, 1985; Quint, 1991; Weinman, 1990). Furthermore, the death rate of women under 16 years of age due to pregnancy related causes is only surpassed by that of pregnant women over the age of 45 (Anastasiow, 1987). The infants of these young women are also at greater risk for prematurity, low birth weight, physical and neurological defects, and mortality (Anastasiow, 1987; McAnarney, Bayer, Kogut, Silverman, & Iker, 1986). These negative mother and child health-related outcomes are not as prevalent in adolescents who bear children in their later teens, after the age of 18 (Geronimus, 1987).

The additional stress created by pregnancy and parenting roles for adolescent women has been implicated as causing negative lifelong outcomes, one of which is school failure (Allen, Kuperminc, Philliber, & Herre, 1994; DeBolt, Pasley, & Kreutzer, 1990; Ekstrom, Goertz, Pollack, & Rock, 1986; Ewer & Gibbs, 1976; Fine, 1986; Gray & Ramsey, 1986; Mott, 1986; Mott & Marsiglio, 1985; Roosa, 1986; Waite & Moore, 1978). Almost half of all adolescent women who become mothers do not complete their high school education (Fine, 1986; Mott & Marsiglio, 1985; McDonough,

1985; Rhodes, 1993; Seitz, Apfel, & Rosenbaum, 1991). In a longitudinal study examining the life-outcomes of teenage mothers, 17 years after the birth of their first child, it was found that many former teen mothers still had not completed their high school education (32.6 %), and all participants in the sample were less educated in comparison to their peers who delayed childbearing (Furstenberg, Gunn-Brooks, & Morgan, 1987). This lack of high school completion, typical of pregnant and parenting adolescents, limits their career and job opportunities and, hence, may diminish the quality of life for them and their children (Adler, Bates, & Merdinger, 1985; DeBolt et al., 1990; Quint, 1991). Furstenberg and his associates (1987) corroborate this point by reporting that early childbearers in their thirties are more likely to be employed in unskilled or semiskilled jobs, are paid modest wages, and do not have full-time jobs. Former teen mothers are more often at the bottom of the socio-economic ladder (Evans, 1986; Wheatherley, 1991; Wheatherley, Perlman, Levine, & Klerman, 1986). Researchers also state that these young women may become dependent on the social welfare system for part of their life because they have no other alternatives for obtaining an income (Quint, 1991; Polit & Kahn, 1985). As has been mentioned previously, the career outcomes of these young mothers may be partly explained by describing and assessing the amounts or sources of stress that they face; however, stress alone can not fully explain the negative educational outcomes of this population. There is a need to explore further the interconnections between the way these young women

cope with stressful situations and how these coping responses affect their educational careers.

In the general stress literature, researchers have pointed out that the impact of stress can be mediated by coping (Cohen & Hoberman, 1983; Thoits, 1982). Some prominent researchers in the field have posited that it is not stress (per se), but how people cope with it, that determines the outcome of the stressful situation (Billings & Moos, 1981; Folkman, Lazarus, Pimley, & Novacek, 1987). In applying this information to adolescent mothers, it is important to examine how coping strategies mediate adolescent mothers' decisions to continue their educational goals despite the high levels of stress that they experience. In studies with adult populations, it has been found that the relationship between stress and coping is moderated and/or mediated by personality characteristics such as self-esteem and by situational variables such as social support (DeLongis, Folkman, & Lazarus, 1988; Lazarus & Folkman, 1984). It is generally reported that individuals who have high self-esteem and supportive networks are more competent copers and experience less distress when faced with stressful situations (Folkman & Lazarus, 1988).

To date, most of the literature examining pregnant and/or parenting adolescents suffers from limited scope (see Table 1). Most authors have examined single links between two specific variables and have not attempted to relate the differential effects of stress and coping to mediating and moderating variables, particularly situational

TABLE - 1 Summary of studies assessing one or more of the following variables: stress, social support, self-esteem and educational outcomes

Investigator(s)	Sample	Sampling Design	Sample Size	Time Frame
Barth, Schinke & Maxwell, 1983	pregnant & parenting teens in special programs	convenience sample	185	cross-sectional
Codega, Pasley & Kreutzer, 1990	pregnant & parenting teens in special school programs	convenience sample	133	cross-sectional
Colletta, 1981	parenting mothers in rural/ suburban county	convenience sample	50	cross-sectional
Colletta, 1987	parenting mothers in a rural county	random sample	75	cross-sectional
Colletta, Hadler & Gregg, 1981	adolescent mothers in a public school system	nonprobability sample	64	cross-sectional
Cooley & Unger, 1991	sample taken from the National Longitudinal Survey of Work Experience of Youth	random sample	3000	longitudinal
de Anda & Bacerra, 1984	pregnant & parenting mothers	convenience sample	122	cross-sectional

TABLE - 1 (cont'd)

Investigator(s)	Sample	Sampling Design	Sample Size	Time Frame
De Anda et al., 1992	pregnant adolescents recruited from agencies and schools	convenience sample	120	cross-sectional
de Anda, Darroch, Davidson, Gilly, & Morejon, 1990	pregnant & parenting teens recruited from health agencies	convenience sample	35	longitudinal
de Anda, Javidi, Jefford, Komorowski & Yanez, 1991	comparison of pregnant & parenting teens to substance abusing teens	convenience sample	192	cross-sectional
DeBolt, Pasley & Kreutzer, 1990	pregnant & parenting teens in special programs	convenience sample	562	cross-sectional, archival data
Ewer & Gibbs, 1976	pregnant adolescents from a gynecology clinic non-pregnant teens from local high schools	convenience sample	254	longitudinal
Furstenberg & Crawford, 1978	pregnant and parenting teens attending hospital based comprehensive program	convenience sample	370	longitudinal

TABLE - 1 (cont'd)

Investigator(s)	Sample	Sampling Design	Sample Size	Time Frame
Gray & Ramsey, 1986	pregnant teens	convenience sample	14	longitudinal
Linares, Leadbeater, Kato & Jaffe, 1991	pregnant and parenting teens attending a parenting program an adolescent health center	convenience sample	120	cross-sectional
Mott, 1986	sample taken from the National Longitudinal Survey of Work Experience of Youth	random sample	1448	cross-sectional
Mott & Marsiglio, 1985	sample taken from the National Longitudinal Survey of Work Experience of Youth	random sample	4696	cross-sectional
McCullough & Scherman, 1991	pregnant & parenting teens who had attended a special program	convenience sample	37	cross-sectional
Pasley, Langfield & Kreutzer, 1993	pregnant & parenting teens in special school programs	convenience sample	152	cross-sectional

TABLE - 1 (cont'd)

Investigator(s)	Sample	Sampling Design	Sample Size	Time Frame
Rauch-Elnekave, 1994	parenting teens	convenience sample	64	cross-sectional
Seitz, Apfel & Rosenbaum, 1991	pregnant & parenting teens in special school-based program	convenience sample	102	longitudinal
Stern & Alvarez, 1992	pregnant adolescents relinquishing their infants, pare adolescents & nonpregnant adolescents prenatal/postnatal clinics	convenience sample	129	cross-sectional
Unger & Wandersman, 1985	two different samples of pregnant and parenting mothers attending prenatal/post natal clinics	convenience sample	Sample 1 = 35 pregnant mothers Sample 2 = 87 pregnant mothers	longitudinal

TABLE - 1 (cont'd)

Investigator(s)	Data Collection Techniques	Type of Analysis	Measure(s) of Stress	Measure(s) of Coping
Barth, Schinke & Maxwell, 1983	paper & pencil measures	Anova, Mancova	Pearling Mastery Scale State trait anxiety inventory	N/A
Codega, Pasley & Kreutzer, 1990	paper & pencil measures	descriptive, factor analysis	N/A	the Adolescent coping orientation for problem experiences scale (A-COPE)
Colletta, 1987	in depth home interviews	descriptive, correlational	N/A	N/A
Colletta, 1981	structured home interviews	descriptive, correlational	questionnaire measuring familial stress	N/A
Colletta, Hadler Gregg, 1981	individual interviews	descriptive, correlational	questionnaire measuring emotional stress	questions regarding emotional, redefinition, avoidance, & active coping
Cooley & Unger, 1991	home interviews	path analysis	N/A	N/A
de Anda & Bacerra, 1984	paper & pencil measures	descriptive, chi-square test	N/A	N/A

TABLE - 1 (cont'd)

Investigator(s)	Data Collection Techniques	Type of Analysis	Measure(s) of Stress	Measure(s) of Coping
de Anda et al., 1992	ethnographic interviews, paper & pencil measures	descriptive, t-tests	four item pregnant adolescent/ adolescent mother stress measure, Sources of stress inventory, State-trait anxiety inventory	twenty-five item scale measuring coping strategies
de Anda, Darroch, Davidson, Gilly, & Morejon, 1990	paper & pencil measures	descriptive, t-tests	State trait anxiety inventory Sources of stress inventory pregnant adolescent/ adolescent mother stress measure	N/A
de Anda, Javidi, , Jefford, Komorowski & Yanez, 1991	paper & pencil measures	descriptive, t-tests	a 103 item pregnant adolescent/ adolescent mother stress measure, Sources of stress inventory	
DeBolt, Pasley & Kreutzer, 1990	paper & pencil measures, Interviews with school personnel	descriptive, discriminate function analysis	N/A	N/A

TABLE - 1 (cont'd)

Investigator(s)	Data Collection Techniques	Type of Analysis	Measure(s) of Stress	Measure(s) of Coping
Ewer & Gibbs, 1976	individual interviews	descriptive, chi-square test	N/A	N/A
Furstenberg & Crawford, 1978	individual interviews	descriptive	N/A	N/A
Gray & Ramsey, 1986	individual interviews	descriptive, chi-square test	N/A	N/A
Linares, Leadbearer, Kato & Jaffe, 1991	individual interviews	descriptive, hierarchical mulitple regression	modified Life events scale	N/A
Mott, 1986	data from databank	descriptive, multivariate analysis	N/A	N/A
Mott & Marsiglio, 1985	data from databank	descriptive	N/A	N/A
McCullough & Scherman, 1991	individual interviews	descriptive	N/A	N/A

TABLE - 1 (cont'd)

Investigator(s)	Data Collection Techniques	Type of Analysis	Measure(s) of Stress	Measure(s) of Coping
Pasley, Langfield & Kreutzer, 1993	paper & pencil measures	descriptive, t-tests	Life events scale	Adolescent coping orientation questionnaire
Rauch-Elnekave, 1994	structured interview	descriptive	N/A	N/A
Seitz, Apfel & Rosenbaum, 1991	individual interviews archival data	descriptive, chi-square test	N/A	N/A
Stern & Alvarez, 1992	paper & pencil measures	descriptive, Mancova	question regarding a recent stressful event	Ways of coping scale revised
Unger & Wandersman, 1985	structured home interviews	descriptive, correlational	N/A	authors specified the use of Rosenberg self-esteem and Pearling state anxiety scale as coping measures

Table - 1 (cont'd)

Investigator(s)	Measure(s) of social support	Measure(s) of Self-esteem	Measure(s) of educational outcomes
Barth, Schinke & Maxwell, 1983	UCLA Loneliness Scale, Social Support Inventory, Network Strength measures	Rosenberg self-esteem scale	N/A
Codega, Pasley & Kreutzer, 1990	N/A	N/A	N/A
Colletta, 1987	The network orientation scale, support history Level of task assistance, material guidance & level of network stress	Rosenberg self-esteem scale	N/A
Colletta, 1981	instrument measuring task performance, emotional, information/ guidance, and community services support	N/A	N/A
Colletta, Hadler & Gregg, 1981	questions regarding who provided them with social support	Modified Rosenberg self-esteem scale	N/A

TABLE - 1 (cont'd)

Investigator(s)	Measure(s) of social support	Measure(s) of Self-esteem	Measure(s) of educational outcomes
Cooley & Unger, 1991	familial sources of support	N/A	high school completion
de Anda & Bacerra, 1984	questions regarding who provided social support, accounts of who provided conflicted support	N/A	N/A
de Anda et al., 1992	N/A	N/A	N/A
de Anda, Darroch, Davidson, Gilly, & Morejon, 1990	N/A	N/A	N/A
de Anda, Javidi, Jefford, Komorowski & Yanez, 1991	N/A	N/A	N/A
DeBolt, Pasley & Kreutzer, 1990	N/A	N/A	nature of student's coursework, special education
Ewer & Gibbs, 1976	N/A	N/A	high school attendance reports of school return after delivery

Table 1 (cont'd)

Investigator(s)	Measure(s) of social support	Measure(s) of Self-esteem	Measure of educational outcomes
Furstenberg & Crawford, 1978	sources of familial support	N/A	high school completion, proportion employed proportion on welfare
Gray & Ramsey, 1986	sources of familial support	Rosenberg self-esteem scale	Stanford test of academic skills, high school completion
Linares, Leadbeater, Kato & Jaffe, 1991	twenty item perceived social support scale	N/A	delayed grade-placement the Wide Range Achievement Test-Revised questions regarding occupational aspirations
Mott, 1986	N/A	N/A	high school dropout rates
Mott & Marsiglio, 1985	N/A	N/A	high school or GED completion
McCullough & Scherman, 1991	questions measuring tangible support	questions of self perception	questions regarding vocational aspirations
Pasley, Langfield & Kreutzer, 1993	the Inventory of socially supportive behaviors	Rosenberg self-esteem scale	N/A

TABLE - 1 (cont'd)

Investigator(s)	Measure(s) of social support	Measure(s) of Self-esteem	Measure of educational outcomes
Rauch-Elnekave, 1994	N/A	Piers-Harris children' self-conecpt scale	California Achievement Test, program enrolled in school
Seitz, Apfel & Rosenbaum, 1991	N/A	N/A	academic records including grades, grade level, credits received, absences, program attended
Stern & Alvarez, 1992	N/A	Offer-self-image questionnaire	N/A
Unger & Wandersman, 1985	instrument assessing perceived & functional support	N/A	N/A

variables such as perceived availability of support and personality variables such as level of self-esteem. None of these studies have simultaneously examined the relationships between stress, coping, social support, and self-esteem in relation to the educational outcomes of this high-risk population. An examination of these variables in a comprehensive stress and coping model may begin to explain what variables impact school success or failure in pregnant and parenting adolescent women.

Stress and coping models have been widely used and accepted to explain many negative life-long outcomes in a variety of populations (Folkman, 1984) and are applicable to examining stress and coping as it relates to educational outcomes with adolescent mothers (Colletta, Hadler, & Gregg, 1981; de Anda et al., 1992; Pasley, Langfield, & Kreutzer, 1993; Stern & Alvarez, 1992). As can been seen in Table 1, there are only four studies that have examined the impact of stress and coping in either pregnant and/or parenting teenage mothers. These studies have been cross-sectional and therefore do not allow for the examination of how stress levels may change over time to affect coping efforts which in turn may effect educational goals. A longitudinal study using a stress and coping framework will allow for a more in-depth examination of how coping with stressful events over time can lead to positive educational outcomes and help to identify the personal and contextual determinants of such outcomes (Holahan & Moos, 1987). The

purpose of the current study was to test the effectiveness of such a model in predicting the educational outcomes of teenage mothers.

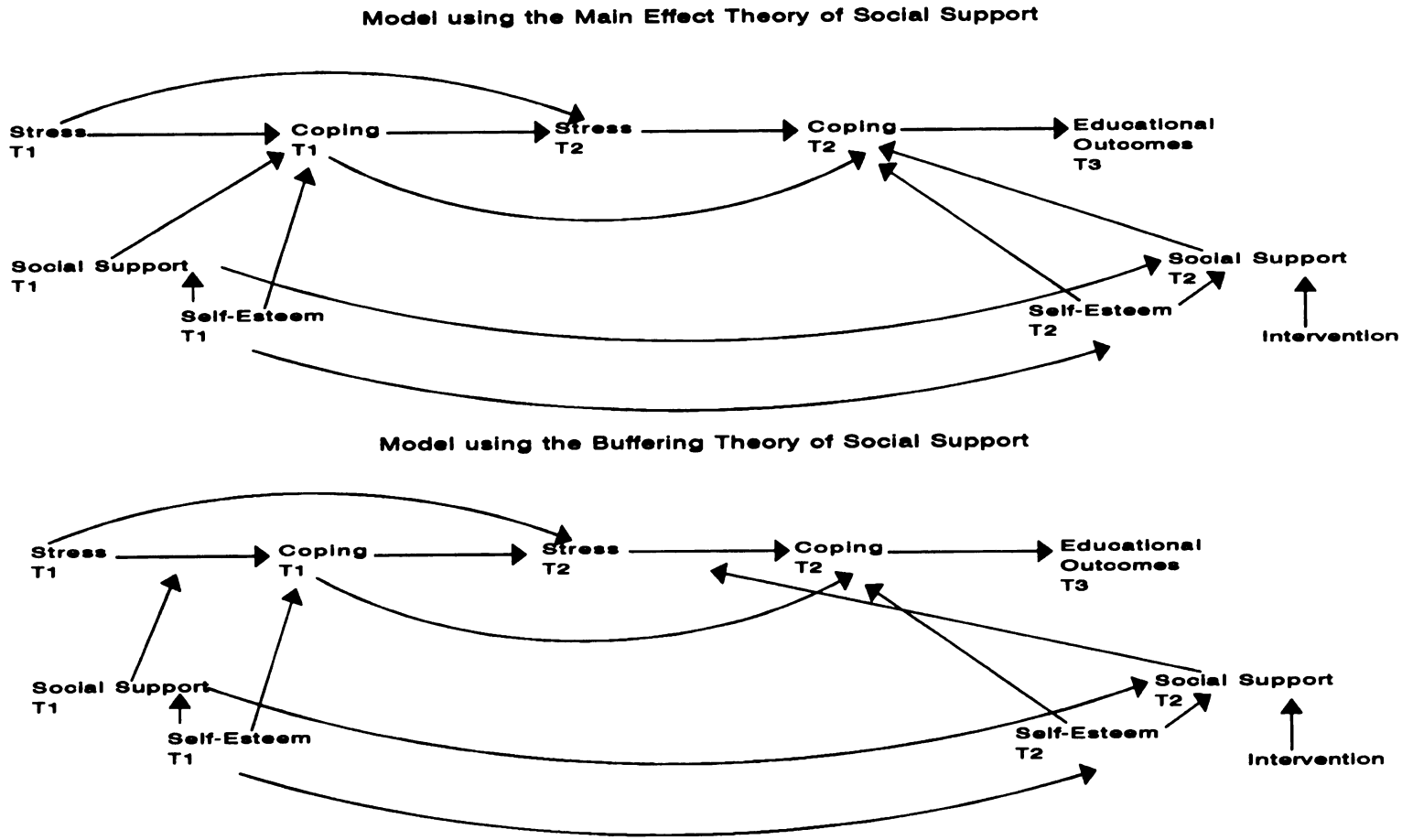
The Theoretical Model

The model presented in Figure 1 is an adapted stress and coping model patterned after the cognitive phenomenological model proposed by Lazarus and Folkman (1984). This is a path model that provides a graphic representation of how stress, coping, social support, and self-esteem are thought to influence pregnant and parenting teens' educational outcomes. The relationships between these variables were examined using data collected from 138 pregnant adolescents at three time periods: 4 months prenatal (T1), 1 month postnatal (T2) and educational outcomes were examined 1 year after the T1 interview.

The two pictorial representations of the model seen in Figure 1, differ only in the way in which social support is thought to effect stress and coping. Given the debate in the literature on the process by which social support mitigates the effects of stress and coping (Cohen & Wills, 1985), both the buffering and main effect theories of social support were tested. The specific hypotheses and the direction of the paths predicted in the model are described below.

It was hypothesized that stress would have a direct positive effect on coping. In other words, when pregnant teenagers experienced stressful situations they would utilize coping strategies in order to alleviate their stress at T1. It was also predicted that coping prenatally (T1) would moderate levels of stress postnatally (T2). This

FIGURE - 1 The Adapted Stress and Coping Model



means that pregnant adolescents who utilized effective coping strategies (T1) would have lower levels of stress in the early stages of parenting (T2), and these lower levels of stress would cause their coping efforts to be more effective postnatally (T2). It was thought that effective coping efforts postnatally (T2) would have a direct positive effect on educational attainment (T3) as measured by grades in school.

At both T1 and T2, social support was thought to have a positive effect on coping in one of the following ways (a) it would affect the direction or strength of the relationship between stress and coping (buffering) (Baron & Kenny, 1986), or (b) it would have a direct affect, with no significant stress-by-support interaction term (main effect). Because the data used in this study were derived from a larger project that randomly assigns four-month pregnant teens to a mentor who provides social support for a period of nine months, the impact of the intervention on the social support variable at T2 was also assessed.

Self-esteem was predicted to moderate the effect of social support on coping during both time periods; teens with higher self-esteem would be more capable of accessing social support. Self-esteem would also have a direct positive effect on coping efforts. Higher levels of self-esteem were predicted to lead to more effective coping strategies. Finally, because the same measures were used to assess stress, coping, social support, and self-esteem at the two time periods, it is expected that these measures would be highly correlated with each other.

In the sections to follow, a literature review will emphasize research on the importance of inclusion of the constructs depicted in the current model. The first section highlights the research conducted on the educational outcomes of adolescent pregnant and parenting mothers. The next section addresses the specific stress and coping model to be used in this study. The last two sections examine how social support and self-esteem relate to stress and coping.

Education and Adolescent Childbearers

Research on the educational outcomes of teenage mothers has provided information on how personal (Hamburg, 1986; Roosa, 1986), transitional (Forste & Tienda, 1992) and school achievement issues (DeBolt et al., 1990; Furstenberg & Morgan et al., 1987; Linares, Leadbeater, Kato, & Jaffe, 1991) are related to the dropout rates of adolescent pregnant and parenting mothers. Roosa (1986) has suggested that there are three types of pregnant and/or parenting teens who drop out of school and do not return to finish their high school education.

For one group, dropping out may be part of a larger sub-cultural pattern. The adolescent in this group might be generally unsuccessful in school, has matched or exceeded her mother's educational level, and/or may be elevated to adult status and receive high levels of support from her social support network. In a study assessing adolescent childbearing as a career "choice" in an African American sample, a sub-group of adolescent women aged 16-21 perceived being a

mother as an alternative normative life path that was more valuable than high school completion (Merrick, 1995).

The second group consists of those who have every intention of completing high school, but who drop out of school within the first several months after delivery. These adolescents lack the support network that will allow them to continue in school (Allen et al., 1995). Rhodes, (1993) for example, found that a mentoring program for postpartum teenage women eased the stress associated with postpartum school transition; she hypothesized that it might forestall or prevent future academic problems.

The third group consists of teenage mothers with high educational aspirations and relatively strong social and institutional support. These mothers survive quite well until they are faced with a second pregnancy. At this point these young mothers are not able to handle stress levels appropriately even when adequate social support is provided (Camp, Holman, & Ridgway, 1993). This may often mean dropping out of school to tend to daily living tasks that are seen as more important than education.

The age of the adolescent mother at the time of her first delivery has also been implicated as contributing to high school dropout rates. Mott and Marsiglio (1985), in examining retrospective data from 6,288 adolescent women who participated in the National Longitudinal Survey of Work Experience of Youth, reported that 55% of 15-year-old pregnant adolescents and 70% of those younger than 15 years of age had dropped

out of high school. Other researchers have consistently found that 14- and 15-year-old mothers attain fewer total years of schooling than those giving birth at 16 and 17 years of age (Moore & Werthermier, 1984; Waite & Moore, 1978).

Adolescent mothers are also likely to be making substantial adult transitions such as establishing independent living arrangements, getting a job, or getting married (Hayes, 1987). These transitions make it more difficult for a young woman to continue her education. Several research studies have indicated that if the adolescent marries either during or after the pregnancy, the probability of dropping out of high school increases (Mott, 1986; Rumberger, 1987). Marriage may require the adolescent to take on adult roles (e.g., working in order to help sustain the household) that interfere with school completion (Forste & Tienda, 1992).

Academic performance is a crucial factor influencing the dropout rate of pregnant and parenting adolescents. That is, being below grade level and having a poor grade point average (GPA) significantly decrease the likelihood of remaining in school for the pregnant or parenting adolescent (Furstenberg & Gunn-Brooks et al., 1987). Adolescent mothers who drop out of school are on the average 2.4 years delayed in grade placement at the time of their first delivery as compared to mothers who stay in school (Linares et al., 1991). A recent study found that teenage mothers who were continuous attenders had histories of academic success at 12 months postpartum relative to mothers who dropped out of

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school prior to delivery and did not return to complete their high school education (Linares et al., 1991). Furthermore, it has been found that teenage mothers who have a cumulative GPA below 2.0 during the academic year in which they give birth are more likely to be high school non-completers (DeBolt et al., 1990).

The rates of high school non-completion for teenage pregnant and parenting mothers have been linked to many individual, academic, and situational factors (Rhodes, 1993). However, high school dropout rates in this population may also be affected by stress and coping. Some teenage mothers may be better prepared to cope with stress and therefore, their educational obtainment may differ in comparison to teenage mothers less prepared to cope with stressful events. For example, in a study examining the effectiveness of an intervention program for teenage pregnant and parenting mothers it was found that teaching decision-making skills, stress inoculation, and effective coping strategies to a group of 161 pregnant adolescents significantly increased levels of school retention (Donnelly & Davis-Berman, 1994).

Stress

Scientific interest in stress has developed from several disciplines; however, there are two basic traditions in which research has flourished. One has evolved from a biological perspective, based on Selye's (1976) research in physiology and endocrinology. Selye's theory, the General Adaptation Syndrome, defines stress as an orchestrated set of bodily defenses against any form of noxious stimulus

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(Selye, 1950). This definition is essentially a treatment of stress as a disturbance to the balance of homeostasis produced by environmental change. Within this framework, stress is seen as a stimulus, and the reaction of individuals to the stressors is the response.

The second tradition is based in psychology. Within this framework, stress is conceptualized as a process that involves recognition of and response to a stressful encounter. The emphasis is on the interaction of stressful agents and the human system of appraisal and evaluation (Lazarus, 1966). Within this framework, stress is seen as the relationship between the person and the environment which is appraised by the person as taxing or exceeding his/her resources and as endangering his/her well-being. In this definition, stress is not a property of the person or the environment, nor is it a stimulus or a response. This definition of stress appears to be the most comprehensive and will be the one used throughout this paper.

Stress and Coping Theory

Models in the social sciences are concerned with explaining stress as well as the processes involved when individuals cope with stress. Lazarus and Folkman (1984) have developed a cognitive theory of stress and coping which has been widely used and accepted (Folkman, 1984). This model proposes a dynamic interplay between stress, appraisal, and coping. The way that individuals perceive and handle stress is seen as a bidirectional process between the person and the environment. This model identifies cognitive appraisal and coping as critical mediators of

stressful person-environment relationships. The meaning of an event is determined by cognitive appraisal processes.

There are two major forms of appraisal: primary appraisal, through which the person evaluates the significance of a specific transaction with respect to well-being, and secondary appraisal, through which the person evaluates coping resources and options. Primary and secondary appraisal converge to shape the meaning of every encounter.

Primary appraisals are judgements that a transaction is irrelevant, benign-positive, or stressful (Folkman, 1984). An appraisal that a transaction is irrelevant is a judgement that it has no significance for well-being, and a benign-positive appraisal indicates that a transaction does not tax the individual's resources, and signals only positive consequences. These thought processes are shaped by an array of person and situation factors.

The evaluation of coping resources and options is called secondary appraisal. It addresses the question, What can I do? and becomes critical when there is a primary appraisal of harm, loss, threat, or challenge. In secondary appraisal, coping resources, which include physical, social, psychological and material assets, are evaluated with respect to the demands of the situation. Examples of physical resources are the person's health, energy, and stamina. Social resources represent the individual's social network and support systems, from which she/he can draw information, tangible assistance, and emotional support (Schaefer, Coyne, & Lazarus, 1982). Psychological resources

include skills for problem solving, self-esteem, and morale. Tangibles refer to items such as food, money, tools, and equipment (Folkman, Schaefer, & Lazarus, 1979).

Coping is defined as the person's constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person's resources (Lazarus & Folkman, 1984). There are three key features to this definition. First, it is process oriented, meaning that it focuses on what the person actually thinks and does in a specific stressful encounter and how this changes as the encounter unfolds. This approach is in contrast with trait approaches, which are concerned with what the person usually does and hence emphasize stability rather than change (Matthews, 1982). Second, coping is viewed as contextual; that is, it is influenced by the person's appraisal of the actual demands in the encounter and resources for managing them. The emphasis on context means that particular person and situation variables together shape coping efforts. Third, no assumptions are made about what constitutes good or bad coping; coping is defined simply as a person's efforts to manage demands whether or not the efforts are successful. This feature contrasts with other models in which coping is defined as instrumental acts that control an aversive environment and, therefore, reduce arousal (Heinrich & Spielberger, 1982). It also contrasts with traditional ego-psychology conceptualizations that consider certain strategies inherently less desirable than others (Menninger, 1963) or that label a

strategy as coping as opposed to defense only if it satisfies certain criteria such as adhering to reality (Haan & Kuhn, 1977). There are two basic types of coping responses: emotion-focused coping involves an avoiding and distancing from a problem; problem-focused coping involves approaching and confronting a stressful situation (Folkman & Lazarus, 1985; Roth & Cohen, 1986; Valentiner, Holahan, & Moos, 1994). Previous studies have provided strong empirical support for the idea that coping usually includes both functions. Both forms of coping were present in over 98% of the stressful encounters reported by middle-aged men and women (Folkman & Lazarus, 1980) and in an average of 96% of the self-reports of how college students coped with a stressful examination (Folkman & Lazarus, 1985). It has also been reported that problem-focused coping is used more with events appraised as controllable, while palliative coping strategies to moderate emotional reactions (emotion-focused coping) are used more with events perceived as beyond personal control (Forsythe & Compas, 1987). This suggests that individuals attempt to change those stressful situations that they believe that they can control and adapt to those they believe they can not change.

Stress and Health Outcomes

Stress and stressful events have been implicated as negatively affecting health outcomes (Holahan & Moos, 1990). Research in this area has involved how major and minor life stressors impact health (Compas, Malcarne, & Fondacaro, 1988). Major life stressors are circumstances such as a chronic illness, war, death of a loved one, divorce, marriage,

or giving birth (Lazarus & Folkman, 1984). Minor life stressors are situations that occur to individuals as a process of daily living that can irritate and distress people. They include stressful events such as being late for work, getting a traffic ticket, and going to the doctor (Holahan & Moos, 1990). Both types of stressful incidents have been implicated as having an impact on personal health and well-being.

In a series of studies, Lazarus and his colleagues (DeLongis, Folkman & Lazarus, 1988; Folkman & Lazarus, 1988; Folkman, Lazarus, Gruen, & DeLongis, 1986; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1988) examined the relationship of daily stressful encounters and psychological well-being with married couples. The overall findings suggest that there is a significant relationship between daily stress and the occurrence of both concurrent and subsequent health problems such as flu, sore throat, headaches, and backaches. It was suggested that persons with low psychological resources are vulnerable to illness and mood disturbances when their stress levels increase, even if they generally have little stress in their lives.

Researchers in the field have further emphasized that stress alone cannot fully explain the negative health outcomes reported in several studies. These researchers have stated that how people cope with stress may be more important in determining the health related outcomes of stressful situations (Billings & Moos, 1981; Folkman, Lazarus, Dunkel-Schetter al., 1987).

Stress, Coping, and Health Outcomes

Coping efforts have been conceptualized into two categories: active or approach-oriented and passive or avoidance-oriented (Billings & Moos, 1981; Lazarus & Folkman, 1984; Roth & Cohen, 1986). Problem solving or active coping strategies include attempts to change the ways of thinking about a problem and behavioral attempts to resolve events by dealing directly with a stressful event. Emotion-focused or avoidant coping strategies include cognitive attempts to deny or minimize a threat, and behavioral attempts to get away from or avoid confronting the stressful event or situation (Billings & Moos, 1981; Folkman & Lazarus, 1980). Researchers have found that emotion-and problem-focused coping have differential effects on psychological well-being and health (Lazarus & Folkman, 1984).

A number of studies show that adults who rely more heavily on avoidant strategies tend to function less well (Ebata & Moos, 1991). In studies with chronically ill populations, emotion-focused forms of coping decreased positive health outcomes (Farberow, 1980; Goldstein, 1980; Kinsman, Dirks, Jones, & Dahlem, 1980; Surwit, Feinglos, & Scovern, 1983). Farberow's (1980) observations on indirect self-destructive behavior in diabetics, and Goldstein's (1980) on hemodialysis patients are illustrative of the point that when an individual denies the serious implications of their disease they are less likely to comply with prescribed medical regimens. This lack of adherence (avoidance behavior) on the part of the individual can

potentially have serious implications for their health and well-being.

On the other hand, problem-solving coping has been found to have beneficial effects on psychological health and well-being. Active coping efforts increase psychological adjustment among adults who have chronic illnesses such as hypertension, diabetes mellitus, cancer, and rheumatoid arthritis, in part because they actively participate in the decisions made about their medical regimens (Felton, Revenson, & Hinrichsen, 1984; Ferraro, 1980; Revenson, Wollman, & Felton, 1983). Individuals in these studies who used more problem solving coping were found to seek out and find information regarding their illness. This process reduced feelings of anxiety that can potentially lead to higher levels of stress and maladaptive behaviors.

Furthermore, in studies with adolescents, it has generally been found that adolescents who used more problem-focused strategies to cope with interpersonal stressors had fewer emotional and behavioral problems, whereas those who used more emotion-focused strategies (e.g., ignored the situation, yelled at the other person, threw things) had more negative psychological outcomes (Compas, Malcarne, & Fondacaro, 1988).

Adolescence, Stress, and Coping

Adolescence is frequently described as a period of development during which dramatic life changes and transitions occur (Daniels & Moos, 1990; Davis & Compas, 1986; Hoekstra, 1984; Puskar & Lamb, 1991; Stark, Spirito, Williams, & Guevremont, 1989; Stern & Zevon, 1990;

Robson, Cook, & Gilliland, 1993). However, research examining the effects of stressful life events during adolescence has lagged far behind similar research with adult populations. There have been few studies examining the association of cumulative life events with psychological and/or physical dysfunction among adolescents (Compas, Slavin, Wagner, & Vannatta, 1986; Newcomb, 1981).

Newcomb (1981), in the course of developing a measure of major life events during adolescence, examined several characteristics of events in this age group as well as the relationship of events to health and psychological functioning. A sample of over 1,000 adolescents reported on the occurrence of 39 major events during the previous year of their lives. Seven clusters of events were identified, based on common occurrence and similarity of content: family/parents, accident/illness, sexuality, autonomy, deviance, relocation, and distress. Health and psychological functioning were differentially related to these event clusters, as well as to the total frequency of events perceived as negative and positive. Negative events were more strongly associated with dysfunction than were positive events, with the highest correlation occurring between negative events and depression. Events from the distress, deviance, and family/parents cluster were most closely associated with disorder, with the strongest relationship occurring between distress events and depression.

In another study examining life events and psychological dysfunction among older adolescents, negative life events were

significantly correlated with symptoms of a variety of psychological problems such as depression, anxiety, obsessive-compulsiveness, interpersonal sensitivity, and somatization (Compas & Slavin et al., 1986). Drawing some conclusions from these studies, there is growing evidence of a relationship between stress and psychological symptomatology in adolescents.

In addition to life events affecting psychological symptomatology in adolescents, there is literature that argues that life events also disrupt school performance (Blom, Chesney, & Snoddy 1986; Grannis, 1992; Johns & Johns, 1983). Youths who have experienced undesirable life changes such as going to a new school or death of a parent have higher levels of school absence, substance use, and delinquency as well as more conflicts with parents (Beck & Rosenberg, 1986; Newcomb, Huba, & Bentler, 1981). Adolescents can potentially face a variety of stressful situations; therefore, it is important to examine how adolescents cope with these situations.

As in research with adult populations, coping in adolescence has been found to affect the stress process (Compas, Banez et al., 1991). Recent studies examining developmental changes in the ways that children and adolescents cope with a wide range of stressors have found that both types of coping mechanisms (emotion- and problem-focused) are consistently used by this age group (Band, 1990; Band & Weisz, 1988; Compas, Banez, Malcarne, & Worsham, 1991; Grannis, 1992; Mantzicopoulos, 1990; Wills, 1986).

Studies indicate that youth who believe that they have a high sense of personal control over a stressful event use problem-focused coping (Weisz, 1986; Weisz, Weiss, Wasserman, & Rintoul, 1987). Problem-focused coping enhances feelings of control if teens are effective in reducing the impact of stressful encounters. There is evidence that emotional distress/arousal is related to control beliefs and problem-focused coping. When problem-focused coping is used and perceived control is high, emotional distress is lower. Emotion-focused coping appears to be used in response to emotional distress or arousal. This pattern has been observed in studies with young adolescents (Compas & Malcarno et al., 1988), college students (Forsythe & Compas, 1987), and in a sample ranging in age from childhood to young adulthood (Compas & Worsham, 1991).

Stress, Coping, and Adolescent Childbearers

For adolescents who are pregnant or parenting, stress may stem from several sources. First, normative changes of adolescence involve rapid biological, cognitive, and psychosocial change (Dunham et al., 1986). Adolescents also must accomplish certain tasks: adjusting to physical changes associated with sexual maturation, achieving appropriate independence from the family, developing social roles with peers, choosing a career, and developing a moral identity (Gilligan, 1991; Sadler & Catrone, 1983). An adolescent mother must also make the transition to parenthood. The tasks of parenthood (dealing with physiological changes of pregnancy and developing a relationship with

the baby) may compete with the developmental needs of adolescence (Sadler & Catrone, 1983). At a time when a young woman is beginning the emancipation process from her family and when her peer group is becoming increasingly important, the adolescent mother may find herself drawn back to the family by realistic needs for physical and emotional support (Owens, Deaneen, & Ridley, 1997). Findings have suggested that adolescent mothers have a high degree of dependence on their own mothers (Becerra & de Anda, 1984; Held, 1981) and have few friends in their social networks (Pletsch, 1988). Increased need and economic dependence on the family may create heightened family stress.

Although research indicates that teenage mothers may face high levels of stress, few studies have addressed stress and coping as it relates to pregnant and/or parenting adolescents (Colletta, Hadler et al., 1981; de Anda et al., 1992; Pasley et al, 1993; Stern & Alvarez, 1992). Some studies have concentrated on exploring what types of stressful situations teenagers face (Barth, Schinke, & Maxwell, 1983; Colletta & Gregg, 1981; Pasley et al., 1993) and others have discussed coping techniques (Codega, Pasley, & Kreuzter, 1990; de Anda, Derrick, Davidson, Gilly, & Morejon, 1990; de Anda, Javidi, Jefford, Komorowski, & Yanez, 1991). In a study comparing levels of stress experienced by pregnant and parenting teens (Stern & Alvarez 1992), it was reported that 71% of parenting adolescents in the sample reported personal or internal stressors as the most difficult ones (e.g., school, living conditions, medical, and child care) while 75% of the pregnant sample

reported personal or internal stressors as the most difficult (e.g., interpersonal conflicts, family problems).

Studies examining coping behaviors of adolescent mothers suggest that certain types of coping mechanisms are used more frequently than others. Adolescent mothers prefer indirect or passive coping strategies such as avoiding a stressful situation, changing the cognitive meaning of the event, and the use of distraction (Barth et al., 1983). Codega, Pasley, and Kreutzer (1990) compared the coping behavior of Mexican American and EuroAmerican adolescent mothers and found that both groups tended to use avoidant or passive type of behavior to deal with stress. In another study (de Anda, Javidi et al., 1991), pregnant and parenting mothers were compared to substance abusing adolescent females on level of stress experienced, manifestations of stress, sources of stress, and coping measures used to deal with stress. No differences were found in the three groups with regard to levels or manifestations of stress; however, adolescent pregnant and parenting mothers had more effective coping strategies than substance abusing adolescent women. Moreover, studies have suggested that certain types of coping function to ameliorate stress. Teenage mothers who used problem-focused coping reported lower levels of stress than mothers who used emotion-focused coping (Colletta & Gregg, 1981; Colletta et al., 1981). Panzarine (1989) suggested that greater problem-solving skills (one type of coping behavior) were significantly correlated with more optimal mother-child interactions.

The research described above provides information about stressful events and the coping strategies used by this population. However, there are additional questions regarding how the stress of adolescence, pregnancy, and parenthood may interact with daily stressful events to exacerbate the effect of overall stress levels and coping. Researchers have proposed that individuals can experience stress overload, such as when a person, whose current life circumstances are straining her/his coping capacities, is confronted with an additional difficulty created by an unanticipated life event, such as a daily hassle (Kessler, Price, & Wortman, 1985; Pearlin, Menaghan, Lieberman, & Mullan, 1981; Thoits, 1983). Stress overload may be a reality for teenagers who are pregnant or parenting. For example, an adolescent mother may be experiencing stress in trying to assume a parenting role with her young infant and at the same time trying to attend school. If in addition to these stressful events she is confronted with a sick infant who cannot be taken to childcare, she may experience stress overload and her coping mechanisms may be compromised by the high level of stress she is experiencing on a daily basis. This stress overload may also put her young infant at risk for abuse, and in turn can create even higher levels of stress in the adolescent mother (Sommer, Whitman, Borkowski, & Shellenbach, 1993).

A stress and coping paradigm provides an excellent framework for examining how stressful events affect the overall well-being of adolescent childbearers in relation to educational obtainment. In order

to increase the predictive power of this model, factors such as social support, which may mediate or moderate the relationship between stress and coping, must also be included.

Social Support and Coping

The presence of a strong social support system has been linked with psychological well-being as well as reduced stress (Billings & Moos, 1981; Cohen & Hoberman, 1983; Cohen & Wills, 1985; Cohen & McKay, 1984; Compas, Slavin et al., 1986; Newcomb, 1981). Social support refers to the resources provided by an individual's interpersonal ties. Research has generally concluded that the level of social support available to individuals experiencing stressful situations may impact subsequent coping efforts.

Research in this area has described two different types of methods by which social support can impact the coping mechanisms of individuals in relation to stressful events. One model proposes that support is related to well-being, primarily for persons under conditions of high stress (Cohen & Wills, 1985). This is termed the *buffering* model because it infers that support protects persons from the potentially pathogenic influence of stressful events. The alternative model proposes that social resources have a beneficial effect irrespective of whether persons are under stress. The evidence for this model is derived from the demonstration of a statistical main effect of support (with no stress-by-support interaction) and is therefore termed the *main* effect model.

In an extensive review of the literature on the merits of social support, Cohen and Wills (1985) found evidence consistent with both models. Because adolescence, teenage pregnancy, and early parenthood are major life events, and have been implicated as times of prolonged chronic stress (Barth et al., 1983; Codega et al., 1990; Colletta & Gregg, 1981; de Anda, Derrick et al., 1990; de Anda, Javidi et al., 1991; Pasley et al., 1993; Stern & Alvarez, 1992), the appropriateness of both models should be examined with this population.

The main effects model posits that social support is beneficial regardless of the degree of stress an individual is experiencing; higher levels of support are directly related to lower levels of distress or physical symptomatology (Kessler & McLeod, 1985). A generalized beneficial effect of social support may occur because large social networks provide persons with regular positive experiences and a set of stable, socially rewarding roles in the community (Thoits, 1983). This kind of support could be related to overall well-being because it provides positive feedback, a sense of predictability and stability in one's life situation, and a recognition of self-worth. Integration in a social network may also help one to avoid negative experiences that otherwise would increase the probability of psychological or physical disorder (Moos & Mitchell, 1982).

The buffering hypothesis states that psychosocial stress will have damaging effects on the health and well-being of those with little or no social support, while these effects will be lessened or eliminated for

those with stronger support systems (Cohen & McKay, 1983). It is proposed that the stress-buffering mechanisms of social support may intervene at two different time points in the causal chain linking stress to psychological well-being. First, support may intervene between the stressful event (or expectations of that event) and a stress reaction by attenuating or preventing a stress appraisal response. That is, the perception that others can and will provide necessary resources may redefine the potential for harm posed by a situation and/or bolster one's perceived ability to cope with imposed demands, and hence prevent a particular situation from being appraised as highly stressful. Second, adequate support may intervene between the experience of stress and the onset of the pathological outcome by reducing or eliminating the stress reaction or by directly influencing physiological processes. Support for either model, however, may be linked to the way in which support is measured (Cohen, & Wills, 1985; Wills, 1985).

Social support has been classified as either structural or functional (Cohen & Wills, 1985; House & Kahn, 1985). Structural support refers to an individual's embeddedness in her/his social network (Barrera, 1986). Having a high level of support from informal sources appears to reduce the need to seek help from professional agencies (Cohen & Wills, 1985). Findings of several studies reviewed by Wills (1987) indicate that most individuals seek help or use some type of support primarily from informal social networks including significant others, friends, and family when coping with major life events rather

than from strangers and professionals. Measures of structural support include the use of indicators of social ties (number of supporters who are regarded as supportive), types of social ties to which individuals have access (e.g. spouses, partners, friends, relatives, etc.), and/or social network analysis (Mitchell & Trickett, 1980). Cohen and Wills (1985) conclude that measures of social relationships assess the extent of embeddedness in a social network, which is important to overall well-being, but does not reliably index the availability of specific support functions that are relevant for stress buffering. While structural support quantifies the relationships of the support network, functional characteristics describe their nature (Krahn, 1993).

Functional social support refers to the perception, availability, and content of social ties (Barrera, 1986). The perception of being socially supported usually involves two components, which are emotional (having someone to talk to about problems), and informational (cognitive guidance and advice). Measures of functional support generally include assessing the perceived availability and adequacy of the interpersonal relationships and/or of specific supportive functions, or satisfaction with support (Cohen, Mermelstein, Kamrack, & Hoberman, 1985). Functional measures of social support generally relate negatively to distress (Collins, Dunkel-Schetter, Lobel, & Scrimshaw, 1993; Dean, Kolody, Wood, & Ensel, 1989; Schaefer et al., 1982), and some studies using these measures report findings consistent with the buffering model (Cohen & Wills, 1985; Wilcox, 1981).

Studies examining the extent of social support provided to first-time mothers indicate that both structural and functional support have beneficial effects on the psychological well-being of the mother during labor and postpartum (Camp et al., 1993; Lobel, Dunkel-Schetter, & Scrimshaw, 1992; Reece, 1993; Younger, 1993). Postpartum depression, a relatively serious condition that may hinder parental functioning in new mothers, was lower among those who perceived that they had others on whom they could rely on for help (functional support), and those who felt they belonged to a group of friends (structural support) with whom they could share common concerns (Cutrona, 1984; Norbeck & Tilden, 1983). Social support from spouses and family are the strongest predictors of both positive self-evaluation in parenting and lower stress postpartum (Reece, 1993). When specifically examining the support networks of adolescent first-time mothers, perceived social support was associated with less stress and less hostile childrearing attitudes (Camp et al., 1993). These findings suggests that structural and functional support are important to the overall well-being of first-time mothers and their infants. Although it is important to examine how social support effects childrearing attitudes in adolescent mothers, future research must also address how the two different types of social support affect the well-being of teenage mothers and their children.

Measures of the two social support concepts have been found to be only minimally related to each other (Barrera, 1986). Numerous researchers have reported low correlations between structural and

functional measures of social support (Cohen & Wills, 1985; Heller, & Swindle, 1983; Wilcox, 1981; Wills, 1987). Heller and Swindle (1983), using factor analysis, found measures of perceived social support and social networks to be independent of each other. Some investigators have found that the quality of one's supportive network is more important than the quantitative or structural aspects of social support in buffering individuals from stress (Wilcox, 1981). There is empirical evidence, then, to draw clear distinctions between different social support concepts.

Several other issues with regard to social support have added to its complexity, both conceptually and methodologically. The existence of social support systems does not necessarily mean they are drawn upon to help cope with stressful events. House, Umberson, and Landis (1988) have proposed that social networks can themselves be sources of stress, such as causing relational conflicts instead of, or in addition to, providing support. Individuals who may need social support may themselves have a negative orientation toward social support. That is, they may not draw upon their social networks for several reasons, such as embarrassment at admitting problems, or the belief that members of the network may not be able or willing to help. Some authors (Barrera, Chassin, & Rogosch, 1993; Fisher, Nadler, & Whitcher-Alagna, 1982) have noted that even when a social support effort is made with a helpful intention and the recipient perceives it to be positive, help can have negative effects on the recipient such as a depletion of self-esteem.

It may also be the case that individuals are trying to provide support that is helpful, but instead they supply support in a way that is insensitive to the recipient's needs (Wortman & Lehman, 1985).

Social Support, Coping, and Adolescence

Studies examining the relationship between social support, coping, and psychological well-being in adolescents have focused on how social networks (family, parents, peers) are related to coping (Cappelli et al., 1989; Compas & Slavin et al., 1986; Cauce & Hannan et al., 1992; Felner, Primavera, & Cauce, 1981; Gad & Johnson, 1980; Hogan & DeSantis, 1994; Horowitz, Boardman, & Redlener, 1994; Midence, Fuggle, & Davies, 1993). These studies suggest that functional parental and familial social support is positively related to adjustment and serves to reduce life stress (Frey, & Rothlisberger, 1996). In a study (Cauce, Hannan, & Sargeant, 1992) examining the social support and psychological adjustment of adolescents, family support was positively related to psychological adjustment. Other studies have found that family support is also positively related to good scholastic self-concept (Felner et al., 1993; Felner & Aber et al., 1985; Felner, Ginter, & Primavera, 1982). Moreover, perceived parental social support is important in reducing the probability of psychological symptomatology in students making the transition from high school to college (Compas & Slavin et al., 1986). More specifically, lower levels of satisfaction with parental social support are thought to be significantly related to

symptoms of depression, somatization, interpersonal sensitivity, and anxiety.

When peer support is specifically examined, studies have suggested that social support from this group may be negatively related to psychological well-being (Aneshensel, & Gore, 1991; Barrera, Chassin et al., 1993; Barrera & Garrison-Jones, 1992; Cauce, Felner, & Primavera, 1982; Felner & Aber et al., 1985; Wolchik, Ruehlman, Braver, & Sandler 1989). It is important to note that studies suggest that support from friends appears to be most often negatively related to scholastic achievement, which may have serious implications for high school performance and completion.

In summary, both parental and peer support have differential effects on the psychological well-being and the school performance of adolescents. In turning the discussion to how social support affects adolescent mothers, it is important to examine how these two sources of support may influence the coping strategies of this group.

Stress, Social Support, Coping, and Adolescent Childbearers

Pregnant adolescents and adolescent mothers suffer from many forms of stress and are more likely to be in need of social support to help them cope with their parental and student roles (Camp et al., 1993; Colletta, 1981a, b; de Anda & Barrera, 1984; de Anda, Javidi et al., 1991; Codega et al., 1990; Pasley et al., 1993). Research in this area, although limited, has examined how social support networks influence the

coping efforts of this group (Davis & Rhodes, 1994; Rhodes & Woods, 1995).

The general consensus in the literature is that maternal support helps to reduce the overall stress or anxiety experienced by new adolescent mothers (Barth et al., 1983). Studies have repeatedly found that the primary asset in the interpersonal environment for helping adolescent mothers cope with parental roles was the adolescent's mother (Davis & Rhodes, 1994; de Anda & Becerra, 1984; Unger & Wandersman, 1985). The adolescent's mother serves as a source of emotional support both during pregnancy and after the birth of the child, and is generally regarded as the most supportive person in terms of providing tangible support (de Anda & Becerra, 1984). For example, it has been found that grandmothers are most often the childcare providers of their daughter's infants while these young women are at school or work (Colletta & Hadler et al., 1981). The adolescent's mother has also been regarded at the person who shows the most interest in her daughter's concerns and has been found to offer the most positive responses to her daughter's parental competencies (de Anda & Becerra, 1984). In sharp contrast, the social support provided by fathers is at best described as marginal. Fathers, when they are present in the home, appear to be the least involved with the adolescent of all persons in the family network (Barth et al., 1983).

Boyfriends and husbands are also sources of emotional and physical support for adolescent mothers in the early postpartum stages of the

parenting experience (Unger & Wandersman, 1985). Adolescent mothers have reported that it was their boyfriends who were the most supportive in terms of listening to their concerns and complying with their ideas about parenting roles (de Anda & Becerra, 1984). Other studies have reported that after a few months postpartum, the baby's father is no longer perceived by the adolescent mother as being especially supportive for her or her baby. For instance, Unger and Wandersman (1985) found that by eight months postpartum many of the mothers in their sample (47%) responded that they were not involved with the baby's father and perceived support from them was not related to mother's parenting behavior. More often than not, unwed teenage mothers develop a relationship with a man other than the baby's father during the postpartum period. This individual serves as a substitute father for the baby and has a significant impact on the mother's parenting behavior (Unger & Wandersman, 1985).

The descriptive data reviewed above on the social support networks of teenage mothers provides information about who is caring, helpful, conveys information, listens to problems, and reduces the young mother's isolation during a stressful developmental stage. Future research in this area needs to address empirically how support from social support networks and stress are related to the coping strategies of pregnant and parenting mothers. In addition to examining the relationships between these variables, it is also important to consider the interplay between social support and the young mother's personal characteristics such as

self-esteem. Self-esteem in many instances has been found to affect not only the way in which individuals perceive support, but also the way in which individuals use the support they obtain (Sandler & Lakey, 1982).

Self-Esteem, Coping, and Social Support

Self-esteem has been defined as the value or sense of worth one perceives about one's self (Rosenberg, 1965; Wylie, 1974). Rosenberg (1965) has categorized self-esteem in terms of a positive or a negative attitude individuals hold of themselves. High self-esteem indicates one believes one is a competent person. This simply indicates that individuals feel that they are a person of worth and have self-respect. In this instance, individuals do not consider themselves better than others, but they do not consider themselves worse than anyone else. Low self-esteem, on the other hand, implies self-rejection, self-dissatisfaction, and self contempt.

Researchers in this area have concentrated their efforts on examining how positive (high) and negative (low) self-esteem effect how individuals respond to a variety of stressful events (Bird & Harris, 1990; Blyth, Simmons, & Carlton-Ford, 1984; Demo & Savin-Williams, 1983; D'Ercole, 1988; Giblin, Poland, & Ager, 1988; Olson, Kieschnick, Banyard, & Ceballo, 1994; Zimrin, 1986). In general, high self-esteem is related to good adjustment and effective coping strategies with adult populations (Folkman, Lazarus, & DeLongis, 1988; Olson et al., 1994). For example, D'Ercole (1988) found positive self-esteem to be directly related to the well-being of single mothers enduring the stress of

economic hardship. In contrast, low self-esteem has been associated with poor overall functioning, and in some instances, deviant behavior. In a study examining the impact of daily stress on the health of married couples, participants with low self-esteem were more likely to experience an increase in psychological and somatic problems both on and following stressful days than participants high in self-esteem (DeLongis et al., 1988).

As in studies with adults, it has been hypothesized that high self-esteem in adolescence protects against the negative effects of stressful events (Kliewer & Sandler, 1992). Low self-esteem may encourage appraisals and coping responses that overestimate the negative impact of stressful life events. Harter (1986) has stated that children and adolescents with an adequate sense of self-esteem utilize adaptive mechanisms (e.g., problem solving) to cope with threats to their sense of self-worth. These young individuals are likely to perceive the negative outcomes of stressful events as a function of the environment or the situation at hand rather than as a function of their self-action.

The relationship between self-esteem and coping in adolescents has been primarily examined in high risk populations (Felner & Aber et al., 1985), adolescents impacted by the process of divorce (Nelson, 1993), teenagers with depressive (Barrera & Garrison-Jones, 1992) and/or suicidal incidents (Lewinsohn, Rohde, & Seeley, 1993), adolescents impacted by child abuse (Zimrin, 1986), and adolescents of alcoholic parents (Barrera & Chassin et al., 1993). In all of these studies,

higher levels of self-esteem were positively correlated with adaptive coping strategies.

Self-Esteem and Adolescent Mothers

To date, investigations examining self-esteem in pregnant and/or parenting teens have simply compared the relative levels of self-esteem in this group to those of a non-pregnant teen control group (Streetman, 1987; Barth et al., 1983); the outcomes of these studies have been contradictory. For example, Barth, Schinke, and Maxwell (1983) found that pregnant and parenting adolescents in their study had lower self-esteem than the control group. Among pregnant and parenting African American adolescents, those who utilized health care services more frequently also had lower levels of self esteem (Rhodes, Fischer, Meyers, & Adena, 1993). Other studies with African American (Brunswick, 1971)) or EuroAmerican (Streetman, 1987) teenagers have found that pregnant young women did not report greater feelings of powerlessness or lower levels of self-esteem in comparison to teenage females without children. In yet another investigation, pregnant teenagers intending to relinquish their infants for adoption showed better overall levels of self-image adjustment as compared to both pregnant adolescents intending to parent and parenting adolescents (Stern & Alvarez, 1992). This information is valuable in describing the possible levels of self-esteem experienced by pregnant and parenting teens, however, studying self-esteem in isolation does not guide the development of comprehensive

theoretical models that can help in the planning of programmatic interventions with this population.

As Heller and Swindle (1983) have suggested, personality factors may play a crucial role in the mobilization of social support. Recent work has produced some evidence on the role of social skills and self-esteem in obtaining social support (Barrera, 1986; Cohen, Sherrod, & Clark, 1986; Colletta, 1987; DeLongis et al., 1988; Mott & Chase-Landsdale, 1991). Barrera (1986), in attempting to create distinctions between the different types of social support concepts, reviewed an extensive amount of literature connecting levels of social support to distress and/or illness. He found that social support and self-esteem were highly correlated. That is, individuals with high self-esteem were more capable of obtaining adequate social support during a stressful event to help them cope; social support increased self-esteem and coping efforts if social support was perceived as helpful. In further support of this relationship, Colletta (1987) found that young mothers with high self-esteem were more likely to feel that it was beneficial to rely on others when their individual resources failed or were inadequate. For the younger group of mothers in this sample (ages 15-17), these two factors (self-esteem and social support) were not independent; individuals who had received support felt esteemed by those who were willing to help in a time of need.

DeLongis, Folkman, and Lazarus (1988), in examining the role of daily stressful events in couples, concluded that individuals with low

self-esteem had lower levels of emotional support to help them cope with stress and illness. In a study exploring the impact of informal, formal, and societal support systems on the mental health of African American adolescent mothers, both lay and professional supports were important for the psychological well-being and self-esteem of these women (Thompson & Peebles-Wilkins, 1992). These findings suggest that social support and self-esteem may influence the adaptational coping strategies of teenage pregnant and parenting mothers.

The Present Study

Although pregnancy, parenting, and developmental changes are stressful experiences for teenage mothers, there has been surprisingly little research on how these young women cope with stress and how those coping efforts may enhance or diminish their educational success. Current empirical evidence is insufficient and wide gaps exist in our knowledge as to how pregnant and parenting young mothers cope with differential levels of stress during pregnancy and in the early stages of parenting. Research literature on stress and coping, in particular, has shown that there are three kinds of outcomes that may result from the complex interaction of stressful events, coping, social support, and personality factors: individuals may (a) display adaptive coping strategies and overcome a stressful experience, (b) essentially return to some normal state for that person without any discernible emotional change or change in physical functioning, or (c) develop various types and levels of psychological symptoms and psychopathology (Cohen & McKay,

1984). Thus, while some teenage mothers drop out of high school and never complete their education, other young mothers may be able to complete their education despite the stressful events of pregnancy and parenting. An important research question then would be to discern the factors that influence the differential outcomes of stress and coping on educational outcomes. Such findings could have implications for possible intervention strategies.

The purpose of the current study was to expand research on what factors predict the educational outcomes of teenage mothers. A longitudinal stress and coping model was used to examine how stress, coping, social support, and self-esteem prenatally and postnatally affected the educational outcomes of this high risk population. Because there is a current debate in the literature on the process by which social support mitigates the effects of stress and coping, both the buffering and main effect processes of social support were tested. The present study was part of the Mentors of Mothers Project, a joint venture between the Lansing School District and Michigan State University, Psychology Department that was funded by the Children's Trust Fund. This project was longitudinal with an experimental design that examined the impact of social support, provided by a mentor, for pregnant and parenting teenage women. Teenage mothers attending a special school program for pregnant mothers were recruited to participate in the study. The young women who agreed to participate were interviewed at three different time periods. Pregnant teens were

first interviewed (T1) when they were four months pregnant, and then they were randomly assigned to either an experimental or control group. The second interview (T2) was conducted one month after childbirth, and the final interview was conducted when their infant was six months of age. In all three interviews, a battery of questionnaires was administered to assess stress, coping, social support, self-esteem, maternal relationships, knowledge of infant development, and infant/maternal health outcomes. The data collected at the T1 and T2 interviews on stress, coping, social support, and self-esteem was the data used for the current study. Educational outcome data was collected at time 3 (T3), which was one year after the T1 interview. This data is archival and was accessible through the Lansing School District central computer.

CHAPTER 2

METHOD

Research Participants

Two hundred and sixty-nine (N = 269) teenage pregnant women were potentially eligible to participate in the study during three academic school years (1991-1992 through 1993-1994) from the Lansing School District's Young Parents Educational Development Program (YPED) for pregnant and parenting adolescents. Of this number, 73 potential participants were considered ineligible due to not having attended the YPED program long enough (at least 10 school days)[1] another 21 participants were lost due to project error (not being able to locate teen, miscalculation of due date). Time 1 data was available for 172 participants, Time 2 data was available for 155 participants. One hundred and thirty-eight (N = 138) eligible participants completed the T1 and T2 interviews and had information available regarding their grade point averages. These were the participants used in the current study.

[1]A minimum attendance requirement of 10 days was established to determine eligibility for the study. This number reflected the average attendance pattern of students enrolled in the YPED program.

Demographic Information

Relevant demographic information regarding the research participants is presented in Table 2. The YPED program serves predominantly low income families (approximately 60% of the registered students receive public assistance via Aid to Families with Dependent Children). The majority of the sample was African American (53.6%) with the second largest group being EuroAmericans (29.0%). The average age of the students was 15 years with a range from 12 to 20 years of age. Approximately 83% percent of the sample reported no previous pregnancies.

With regards to parental demographic variables, 45.7% (N = 63) of these young women's mothers had completed high school while 44.2% (N = 61) of these young women's fathers had completed high school.

Site

The YPED program offers a variety of services to pregnant and parenting teens. These services include two meals a day, child development classes, nutrition and traditional instruction, cab service to and from school, and childcare. These services are offered free of charge once the teen is enrolled in the program. Teens may remain in the program for 2 semesters after they have given birth, and then they must return to their home school. An exception is made for teens who are younger than 16 years of age. They can remain at YPED until they reach their 16th birthday.

Measures

Several existing measures were utilized for this project (see Appendix A). As can be seen in Table 3, the stress, coping, social support and self-esteem constructs were measured by the same questionnaires at two different time periods. The psychometric properties (means, standard deviations, corrected item to total scale correlations) for these measures for both time periods can be found in Appendix B (Tables 4 - 11).

Stress

A modified version of the Hassles Scale (Kanner, Coyne, Schaefer, & Lazarus, 1981) was used to measure stress. The original version included 117 items and was validated on a sample of EuroAmerican men and women between the ages of 45 and 64; test-retest reliability was r = .79. In the 24-item version used for this study, redundant items and items and words that suggested psychological and somatic symptoms were eliminated (cf. Dohrenwend, Dohrenwend, Dodson, & Shrout, 1984). The coefficient alphas obtained for the current sample were α = .84 for the T1 interview and α = .87 for the T2 interview. The domains tapped in this revised scale were work, health, family, friends, the environment, practical considerations, and chance occurrences. The participants were asked to indicate on a 4-point Likert scale, ranging from none (1) to a great deal (4), how much of a hassle each item was for them within the previous month. Examples of some of the items are: sex, intimacy, your health, or your medical care.

TABLE 2 - Demographics of Research Participants

SAMPLE SIZE: 138

AGE: Mean = 15 RANGE = 12-20

- ETHNIC COMPOSITION:

53.6%	African American	(N = 74)
29.0%	EuroAmericans	(N = 40)
13.0%	Latinas	(N = 18)
03.6%	Native Americans	(N = 05)
0.07%	Asian	(N = 01)

- NUMBER OF PREVIOUS PREGNANCIES REPORTED:

82.6%	None	(N = 114)
15.9%	At least one	(N = 22)
0.01%	No information	(N = 2)

PARENTAL EDUCATIONAL INFORMATION

- MATERNAL EDUCATION:

2.9%	Elementary School	(N = 04)
21.7%	Some High School	(N = 30)
45.7%	High School Graduate	(N = 63)
18.8%	Some College	(N = 26)
10.9%	No information	(N = 15)

- PATERNAL EDUCATION:

4.3%	Elementary School	(N = 06)
11.6%	Some High School	(N = 16)
44.2%	High School Graduate	(N = 61)
11.6%	Some College	(N = 16)
28.3%	No information	(N = 39)

The Hassles Scale can be scored in three different ways: (1) frequency, a simple count of the number of items checked, which can range from 1 to 24; (2) cumulated severity, the sum of the severity ratings; and (3) intensity, the cumulated severity divided by the frequency. Previous research has indicated that the intensity score is a more appropriate measure of how many stressors individuals experience it also provides information about how severe these stressors are to individuals (DeLongis et al., 1988). For the purpose of this study, the intensity scoring was used in all statistical analysis because it was thought to be a more accurate measure of the impact of stressful situations.

Coping

Coping was assessed with a shortened, 33-item version of the 66-item Ways of Coping Questionnaire (Folkman & Lazarus, 1980, 1988). The revised Ways of Coping Scale, previously used in a study examining coping processes in middle class EuroAmerican couples (Folkman, Lazarus, Pimley et al., 1987), lists a broad range of cognitive and behavioral strategies that individuals use to manage the internal and external demands in stressful encounters. Participants are asked to rate on a 4-point Likert scale, ranging from not used (1) to used a great deal (4), the extent to which they used each item in coping with the most stressful domains in their life.

TABLE 3 - Measurement Model for the Longitudinal Causal Model of: Stress, Coping and Educational Outcomes Among Adolescent Mothers.

Construct	Measure	Reliability (α) T1	T2
INDEPENDENT VARIABLES			
Stress	24-item modified Hassles Scale (Kanner, Coyne, Schaefer, & Lazarus, 1981)	.84	.87
Coping	The problem-focused coping subscale of The Ways of Coping Questionnaire (Folkman & Lazarus, 1980, 1988)	.79	.77
Structural Support	Network size- Social Support Questionnaire (Norbeck, Lindsey, & Carrieri, 1981)	.43*	
Functional Support	The Inventory of Socially Supportive Behaviors (ISSB) (Barrera, Sandler, & Ramsay, 1981)	.93	.93
Self-Esteem	Self-Esteem Scale (Rosenberg, 1965)	.82	.81
DEPENDENT VARIABLE			
Educational Outcomes	Grade Point Average Difference Score (T2 GPA minus T1 GPA) 1 yr. after 1st interview - 1 yr. before entering program		

* Correlation between T1 and T2 ($p < .0001$)

The items on the scale have been previously factor analyzed into 8 subscales: (1) confrontive coping (e.g., "Stood my ground and fought for what I wanted"), (2) distancing (e.g., "Went on as if nothing had happened"), (3) self-control (e.g., "I tried to keep my feelings to myself"), (4) seek social support (e.g., "Talked to someone who could do something concrete about the problem"), (5) accepting responsibility (e.g., "Realized I brought the problem on myself"), (6) escape-avoidance (e.g., "Wished that the situation would go away or somehow be over with"), (7) planful problem solving (e.g., "I made a plan of action and followed it"), and (8) positive reappraisal (e.g., "Found new faith"). The alphas for the 8 scales have been found to range from .53 to .76 in data using a sample of young couples (35 to 45 years of age) and from .47 to .74 in a sample of older couples (65 to 74 years of age) (Folkman et al., 1987). The relatively low alphas obtained by factor analyzing the items into 8 scales suggests that such a factor solution may not be the most appropriate for these scale items. Folkman and Lazarus (1980) have suggested factor analyzing this scale into two factors: a problem-focused and emotion-solving subscale. In their factor solution the alpha coefficients for the problem solving scale was .80 and .81 for the emotion solving scale.

For purposes of this study a principal components factor solution was conducted on this scale and two factors were obtained as suggested by Folkman and Lazarus (1980). Some items were deleted if their corrected item to total correlations did not meet a .35 criteria

loading, if an item had a factor loading of .35 or higher on both factors, or if the item did not make conceptual sense to the subscale. The 11-item problem-solving subscale obtained was used in the data analysis of the current model because this type of coping has been reported as effective in reducing the impact of stress on teenage pregnant women (Colletta et al., 1981). The reliabilities for the problem solving subscale with this sample were α = .79 for the T1 interview and α = .77 for the T2 interview.

Social Support Measures

The Inventory of Socially Supportive Behaviors (ISSB) was used to measure functional social support (Barrera et al., 1981). This scale has adequate test-retest reliability (r = .82) and internal consistency (r = .92) in both a sample of college students and a sample of pregnant adolescents (Barrera, Sandler et al., 1981). Liang (1994), in factor analyzing this instrument with a portion of the current sample (N = 84), found adequate reliability in all 3 subscales (non-directive support, α = .89; tangible support, α = .66; and directive guidance support, α = .80).

This 40-item scale measures how often participants perceive that they have received functional support from their supportive network on a 5-point Likert scale (1 = not a at all to 5 = about every day). Some examples of the items are "gave you under $25.00 to keep" and "agreed that what you wanted to do was right." This measure yields an overall support score which was the one used to test the buffering effects of

social support in this study. The entire scale was utilized rather than the factor solution used by Liang (1994) because all functional social support was of interest in this study. The alphas on the entire scale for the current sample were .93 at both T1 and T2 interviews.

Structural support was measured by using a modified version of the Maternal Social Support Questionnaire, originally developed by Norbeck, Lindsey, and Carrieri (1981)(test-retest reliability = .92). Brookins (1990) used this revised scale with a sample of new mothers and reported a Cronbach alpha of .88 for the functional subscale and .61 for the network structure subscale.

Participants were asked to list up to 20 supporters and indicate for each one how much emotional support, advice and information, and practical assistance was provided to them specifically about parenting. An inquiry is also made as to the degree of general and conflictual support received. These questions are answered on a Likert scale that ranged from 1 (none at all) to 5 (a great deal), and were designed to measure the level of functional social support with regard to parenting that a participant receives.

The second part of the instrument is designed to measure the structural aspects of the mothers' social network. The five items on this scale include the number of social supporters listed, the relationship of the supporters to the respondent, the length of time the respondent has known each supporter, the proximity of the supporter in terms of where they live in relation to the respondent, and the

frequency of contact that the respondent has with the supporter. The response format for each of these items ranges from 1 to 5 with the higher numbered responses indicating greater frequency or closeness. The social support network size indicated by the total number of individuals mentioned by the participant as being supportive was used as a measure of structural support in the main effects model tested in this study. A correlation analysis was used to compare the number of supporters that teens reported at T1 and T2 and the correlation obtained was $r = .43$ ($N = 138$, $p < .05$).

Self-esteem measure

The Rosenberg Self-Esteem scale (Rosenberg, 1965) consists of ten items measuring self-worth and self-acceptance on a Likert scale ranging from (1) strongly disagree to (4) strongly agree. This scale has demonstrated good test-retest reliability with a sample of teenage pregnant and parenting mothers ($r = .96$; Colletta, 1981a). Previous analysis using portions of the current sample have yielded a moderately high reliability coefficient ($r = .88$; $N = 86$; Liang, 1994). Other studies using this scale have also reported moderate reliability ranging from .81 (Brookins, 1990) to .84 (Pasley et al., 1993). As can be seen in Table 3, the alphas obtained for this study for both time periods were respectable (T1 $\alpha = .82$; T2 $\alpha = .81$). Examples of some of the items are as follows: "I feel that I'm a valuable person, at least equal with others," "All and all, I tend to feel I am a failure." The sum

score of all scale items will be used as the measure of self-esteem in the data analysis.

The Measurement of Educational Outcomes

Participants' grade point averages (GPA) were collected at two different time periods--one year before their participation with the YPED program and one year after their T1 interview. To establish the grade point difference score, GPA one year pre-YPED was subtracted from GPA post-T1 interview. In the event that a GPA score was unavailable, the last cumulative GPA recorded by the Lansing School District for the participant was used in the data analysis. Grade point averages in the Lansing School District are assigned as follows; 4.00 = A, high competency; 3.00 = B, above average competency; 2.00 = C, average competency; 1.00 = D, below average competency, and 0 = F, failing.

Procedures

Participant Interviewing

All eligible participants had an initial intake interview at the time of their enrollment in the YPED program. This short interview was routinely conducted by school personnel in order to obtain basic demographic information about the participants. Participants and their legal guardians were informed about the research study and asked if they wanted to participate. The details of the research study were explained at this time. Potential participants were informed that participation in the project involved being interviewed three times-- when they were at least 4 months pregnant, when their baby was one month old, and when

their baby was 6 months old. They were also informed that they would be paid $5.00 for their first interview, $10.00 for their second interview, and $15.00 dollars for their third interview. The dollar increments were increased per interview to encourage continued participation. Potential participants were further informed that half of the women would be randomly assigned to receive a mentor until their baby was six months of age. Once the participants and their legal guardians agreed to participate, they signed a consent form (See Appendix C). All adolescents older than 18 years gave their written consent; younger teens gave their verbal assent.

Interviewer Training

All interviews were conducted by junior and senior level female undergraduates under the supervision of graduate student coordinators. The interviewers underwent 4 weeks of rigorous training in interviewing techniques before conducting interviews with the participants. A written manual (see Appendix D), films, class discussions, role-plays, and other exercises were utilized in the training. After training, students continued to meet with the graduate coordinators once a week to discuss and evaluate the previous week's interviews, answer questions, and resolve other issues with regard to interviews or to the coding of the responses. They were also required to maintain a journal documenting their efforts at accomplishing interviews. The interviewers earned college credits for their involvement in the project.

Time 1 interviews were mainly conducted on site as the teen arrived for school in the morning, and lasted approximately 1 hour. Time 2 and Time 3 interviews were usually conducted in the home of the teenagers and took 1 1/2 hours or longer to complete.

Mentor Training

Mentors were women in the community with parenting experience who were recruited to participate in this project on a voluntary basis. Participation was solicited from Lansing School District personnel, Michigan State University personnel, and women's organizations through media coverage and informational flyers. Mentors' applications were reviewed by the mentor coordinator. The potential mentors attended a 2-day training session prior to their assignment of a mentee. The training focused on teenage pregnancy, communication, and the difficulties involved in maintaining relationships with adolescent mothers. These mentors were supervised by the mentor coordinator on a weekly basis throughout their participation in the project.

Experimental Intervention-The Provision of Mentors

Half of the teens were randomly assigned to the experimental condition. These young women received a mentor who was intended to be an additional support person to help teens with issues concerning parenting, child development, and interpersonal relationships for a period of 9 months. During the 9 months, mentors and mentees were instructed to have contact with each other at least once a week. There

was also a 1-hour weekly support group for the teens to share concerns about parenting and their mentor-mentee relationship.

CHAPTER 3

RESULTS

Descriptive Data

In order to explain the variables in the proposed models, a brief discussion of the scale item means, standard deviations, and variances will follow (see Table 12). As can be seen in Table 12, pregnant adolescents at the prenatal data collection (T1)appear to have had moderately high levels of stress, M= 2.60 (range= 1-5, a higher score indicates more stressors) and attempts at coping, M= 24.47 (range 10-40, a higher score indicates more attempts in coping with stressors). It can also be seen that these young women had moderate levels of self-esteem, and that this variable remained constant postnatally (T1 M= 3.07 and T2 M= 3.07 respectively; range= 1-5, a higher score indicates more positive self-esteem). Prenatallly these young women, on average, had approximatley nine supporters in their social networks (M= 9.32; range= 1-20).

In examining the comparative data postnatally (T2), these young women continued to have moderate levels of stress M= 2.56 and continued to cope at approximately the same level as they did prenatally, M= 24.75. As has been mentioned previously, self-esteem is a variable that

Table 12 - Descriptive Data for Variables used in the Path Analysis

	Descriptive Data for Variables Used in the Path Analysis		
SCALE	**MEAN**	**Standard Deviation**	**VARIANCE**
Stress T1	02.60	0.38	00.15
Coping T1	24.47	6.34	40.17
Social Support T1	09.32	4.47	14.61
Self-Esteem T1	03.07	0.46	00.21
Stress T2	02.56	00.41	00.17
Coping T2	24.75	05.85	34.26
Social Support T2	07.54	03.82	14.61
Self-Esteem T2	03.07	00.46	00.21

remained constant postnatally. On the other hand, social support dropped from a mean of 9.32 prenatally to a mean of 7.54 postnatally.

Evaluation of the Model

As mentioned previously, the model evaluated was a longitudinal stress and coping model predicting the educational outcomes of adolescent mothers. Given the debate in the literature on the process by which social support mitigates the effects of coping (Cohen & Wills, 1985), both main effect and buffering theories of social support were evaluated; structural measures were used in one model to test for main effects and functional measures in another to test for buffering effects.

To test for the hypothesized relationships in the model, the PATH routine in Package created by Hunter and Hamilton (1992) was used. Path is a least squares path analysis program that has the capability of

Table 13

Zero-order correlations of Variables used in the Buffering Path Analysis

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. T1 Stress	1.00											
2. T1 Coping	0.12	1.00										
3. T1 Social Support	0.03*	0.34*	1.00									
4. T1 Stress X T1 Social support	0.90*	0.22*	0.37	1.00								
5. T1 Self-esteem	-0.27*	0.08	0.23*	-0.16*	1.00							
6. T2 Stress	0.53*	0.19*	0.06	0.53*	-0.22*	1.00						
7. T2 Coping	0.15	0.39*	0.27*	0.25*	0.09	0.21*	1.00					
8. T2 Social Support	0.16	0.32*	0.43*	0.28*	0.06	0.29*	0.42*	1.00				
9. T2 Stress X T2 social support	0.50*	0.25*	0.19*	0.54*	-0.19*	0.94*	0.29*	0.55	1.00			
10. T2 Self-Esteem	-0.11	-0.06	-0.06	-0.13	0.29*	-0.15	-0.15	-0.06	-0.15	1.00		
11. Grade Point Average (GPA)	-0.04	-0.21*	-0.08	-0.5	-0.01	-0.21	-0.24	-0.12	-0.22	0.06	1.00	
12. Mentoring Intervention	0.04	-0.11	-0.04	0.02	-0.01	0.11	-0.10	-0.03	0.10	-0.04	0.12	1.00

*p<.05; N= 138

Table 14

Zero-order correlations of Variables used in the Main Effect Path Analysis

Variable	1	2	3	4	5	6	7	8	9	10
1. T1 Stress	1.00									
2. T1 Coping	0.12	1.00								
3. T1 Social Support	0.00	0.18*	1.00							
4. T1 Self-esteem	-0.27*	0.08	0.10	1.00						
5. T2 Stress	0.53*	0.19*	0.09	-0.22*	1.00					
6. T2 Coping	0.15	0.39*	0.03	0.09	0.21*	1.00				
7. T2 Social Support	0.18	0.13	0.44*	0.04	0.22*	0.11	1.00			
8. T2 Self-Esteem	-0.11	-0.06	0.00	0.29*	-0.15	-0.15	-0.08	1.00		
9. Grade Point Average (GPA)	-0.04	-0.21*	0.00	-0.01	-0.21*	-0.24*	0.00	0.06	1.00	
10. Mentoring Intervention	0.04	-0.11	0.06	-0.01	0.11	-0.10	0.05	-0.04	0.12	1.00

*p<.05; N= 138

analyzing recursive and non-recursive models. Path uses a correlation matrix, corrected for attenuation, and evaluates its fit with the model described. When examining the buffering effects of social support, a 12x12 correlation matrix was used (see Table 13), and when examining the main effects of social support, a 10x10 matrix was used (see Table 14).

There are three issues to consider in evaluating the results of the proposed model. First, the overall fit of the model should be considered. The criterion used to determine the fit of the proposed model is a chi-square goodness-of-fit test. This test involves a sampling error analysis that uses the reliabilities of the scales in the model to establish a chi-square goodness of fit. This chi-square should be non-significant, which indicates that there is no difference between the data and the model. In other words, a non-significant chi-square means that the data fit the proposed model. Furthermore, the sign and the size of the coefficients should be considered. All the path coefficients were predicted to be positive except for the path from coping prenatally to stress postnatally which was predicted to be negative. It was hypothesized that all of the relationships modeled would be significant (i.e. all path coefficients would be significant).

Summary of Results and Evaluation of the Hypotheses

In conducting analysis to examine the buffering effects of social support, the chi-square goodness-of-fit test was significant (X^2 = 131.21, df = 45, $p < .05$). This goodness-of-fit test suggests that the data did not support a buffering effect model of social support,

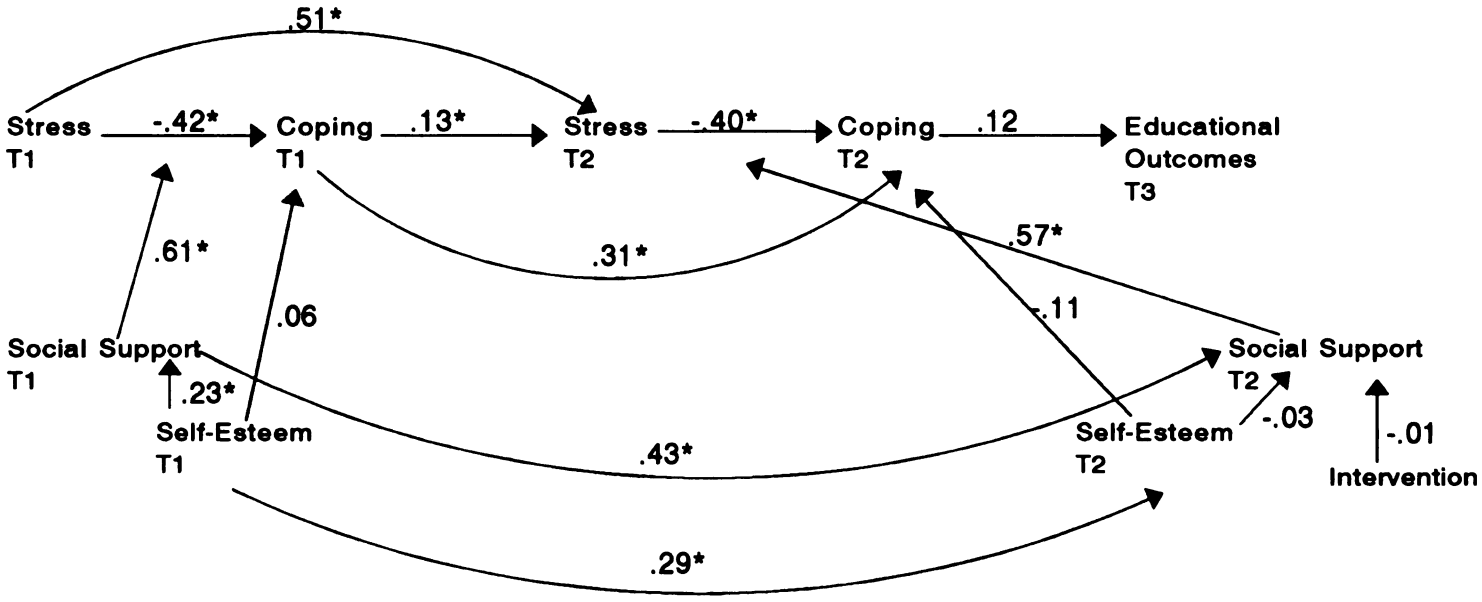
although some of the path coefficients within the model were significant, large, and in the direction expected (see Figure 2).

On the other hand, the chi-square test was non-significant for the model when examining the main effects of social support (X^2 = 16.30, df = 29, $p < .05$) suggesting that this model was a good overall fit for the data (see Figure 3). Further explanation of the results of this model are discussed below.

At T1, higher levels of stress led to more problem-focused coping efforts, supporting results consistently shown in the stress and coping literature (Lazarus & Folkman, 1984). As hypothesized, at T1 stress did have a direct and significant positive effect on coping. The higher the stress level encountered by these young women prenatally, the more coping efforts they attempted in order to alleviate their stress. Structural social support was also positively related to these young women's coping efforts. Pregnant adolescents with more individuals to provide support for them used more problem-focused coping efforts. The link between these two constructs was positive and the size of the path coefficient was significant. Self-esteem was also significantly positively related to coping. This suggests that the higher self-esteem a pregnant teen had, the more coping efforts she was attempting. The relationship between self-esteem and social support was not significant; this failed to support the predicted hypothesis.

It was hypothesized that coping prenatally (T1) would moderate levels of stress postnatally (T2), as represented by a negative path.

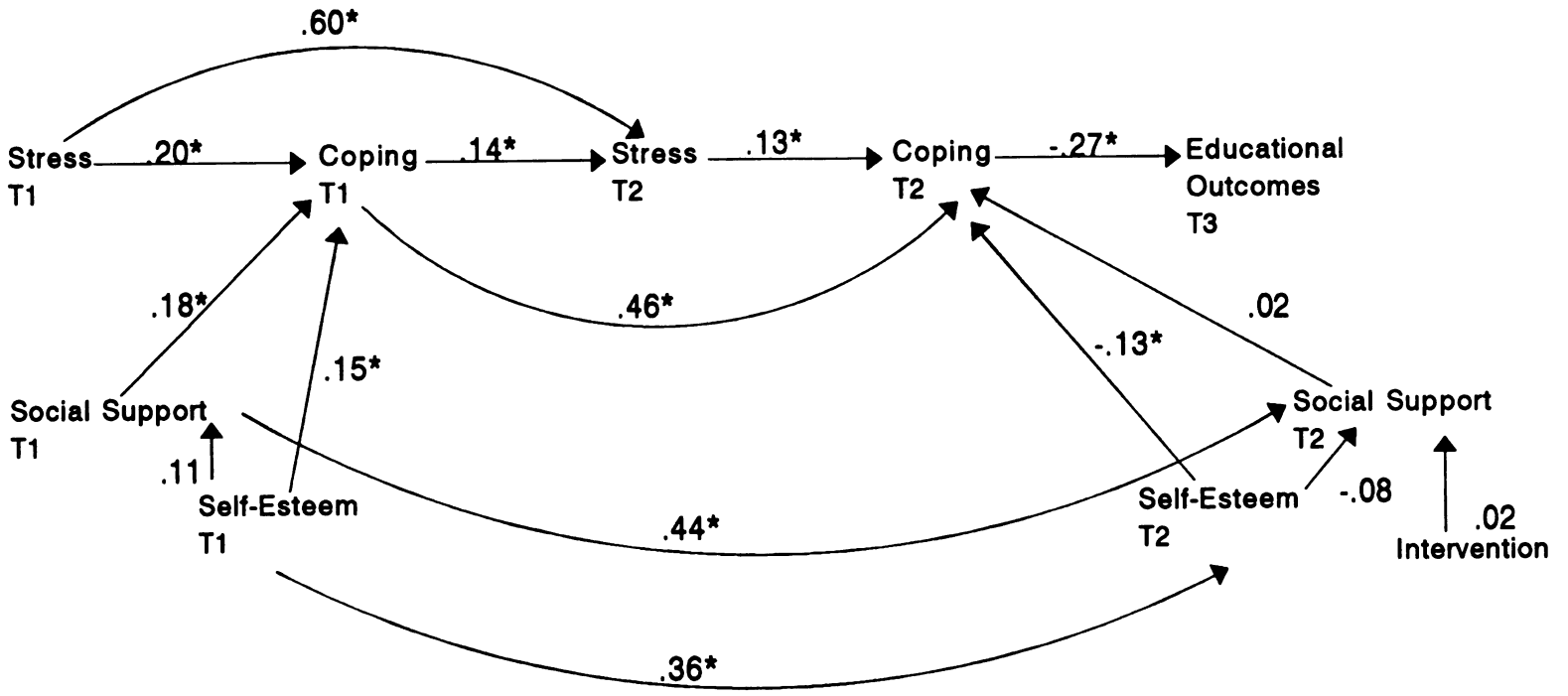
FIGURE - 2 The Path Analysis Results for the Buffering Model



X^2 (df= 45)= 131.21

[Critical X^2 for df= 49 is 67.50]

FIGURE - 3 The Path Analysis Results for the Main Effect Model



X^2(df = 29) = 16.30

[Critical X^2 for df = 29 is 49.59]

It was also predicted that pregnant adolescents who utilized problem-focused coping strategies prenatally (T1) would have lower levels of stress in the early stages of parenting (T2). As can be seen in Figure 3, the relationship between these two constructs was positive and significant and thus did not support the hypothesis. This suggests that effective coping strategies prenatally did not appear to diminish the amount of stress experienced postnatally. In order to determine the contribution of stress and coping at T1 a hierarchical multiple regression analysis was performed using stress at T2 as the dependent variable. It was found that stress at Time 1 explained a significant amount of the variance in the stress variable at T2 while coping had no significant predictive effects on the T2 stress variable (see Table 14).

As hypothesized, stress postnatally lead to more coping efforts postnatally. However, at this time period, the path between social support and coping was non-significant. This result did not support the predicted hypotheses. In order to understand why this relationship was positive and significant at T1, but negative and non-significant at T2, a repeated measures t-test was conducted on the social support variables at both time periods. This analysis demonstrated that there was a significant change of social support from T1 to T2 [t = (138) = 4.84, p < .0001]. At T2, the teens had significantly fewer supporters to help them cope with the stress of parenthood (T1 M = 9.84, SD = 5.10; T2 M = 7.53, SD = 3.91 respectively).

The relationship between self-esteem and coping postnatally was significant and negative; the higher the self-esteem of these young women the less coping they were attempting. Once again, the relationship between self-esteem and social support is not significant. The path between the intervention and social support was also non-significant. Finally, the path between coping and educational outcomes was significant and negative. This finding suggests that the more problem solving coping these young women use, the more negative will be their educational outcomes.

In examining the individual link analysis provided by the PATH program, there were three paths that could potentially improve the overall fit of the current model. The first link was a path between stress at T1 and social support at T2 ($z = 1.61$). The second link was between stress at T2 and social support at T2 ($z = 1.84$). The final suggested link was between stress at T2 and educational outcomes ($z = -1.32$). Another path analysis was conducted in order to establish whether these links improved the overall fit of the model. It was found that this updated model had a non-significant chi-square that fit the data more accurately than the originally proposed model ($X^2 = 8.98$, $df = 24$, $p < .05$). The results of this analysis suggest that the path between stress at T1 and social support at T2 was positive and significant. This finding suggests that the impact of stress prenatally had a significant impact on the number of social supporters at T2. The other significant path was between stress at T2 and educational

outcomes. This path suggests that higher levels of stress directly impacted the educational outcomes of adolescent mothers. The path between stress at T2 and social support at T2 was found to be non-significant (see Figure 4).

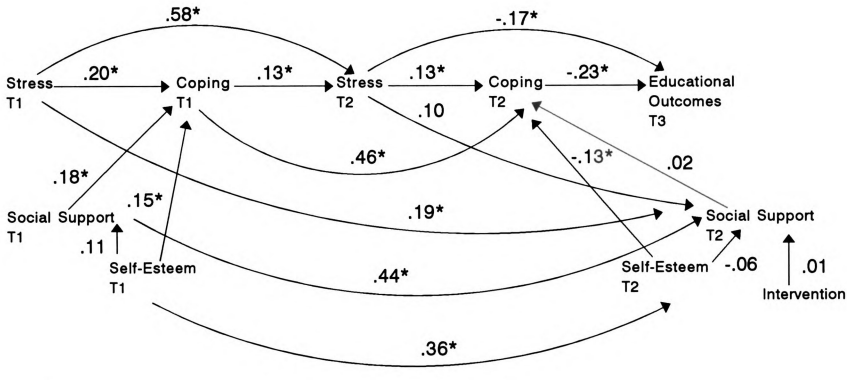
TABLE 15 - Hierarchical Multiple Regression Analysis and Intercorrelations Predicting Stress Postnatally

	Postnatal Stress			
Predictor Blocks	r	beta[a]	t	significance of t
Block 1: Prenatal Stress $F = 49.38$, $p < .001$ $R^2 = .26492$ R^2 Change = .26492				
T1 Stress	.53*	.515	7.03	.0001
Block 2: Prenatal Coping $F = 26.19$, $p < .0001$ $R^2 = .27807$ R^2 Change = .01315				
T1 Coping	.19*	.116	1.57	.1178

[a] Standardized regression coefficients are reported for the step in which they were entered into the model.

*$p < .05$

FIGURE - 4 The Path Analysis Results for the Main Effect Model with Additional Links Added



X^2 (df = 24) = 8.98

[Critical X^2 for df = 24 is 36.41]

CHAPTER 4

DISCUSSION

The primary purpose of this study was to expand research on what factors impact the educational outcomes of teenage parenting women. A model using the cognitive phenomenological stress and coping paradigm was examined. Existing work with adolescent mother populations has focused almost exclusively on examining the stress levels and/or the coping responses of this population. Some research studies have concentrated on exploring what types of stressful situations pregnant teenagers face (Barth et al., 1983; de Anda et al., 1992; Pasley et al., 1993; Stern & Alvarez, 1992) while others have discussed what types of coping techniques these young women utilize (Codega et al., 1990; de Anda et al., 1990; de Anda et al., 1991). These studies have primarily been cross-sectional and have not allowed for the examination of how stress levels may change over time to affect the coping efforts of teenage mothers. A longitudinal study such as the present one allows for a more in-depth examination of how coping with stressful events over time leads to educational outcomes and helps to identify which personal and contextual determinants are important in the process.

Major Findings

The results of this study suggest that the proposed stress and coping model accurately reflected the collected data. Teenage mothers' educational outcomes were impacted by stress and coping. Social support and self-esteem were found to have differential effects prenatally and postnatally on these young women's coping efforts. Social support had a main effect, but not a buffering effect, on the coping efforts of this sample. In the sections to follow, these findings will be more fully discussed.

Stress and Coping

One of the principles of the stress and coping literature is that levels of stress are mitigated by coping strategies (Folkman et al., 1986). In this study, it was found that high levels of stress led these young women to use more problem-focused coping efforts both prenatally (T1) and postnatally (T2). These findings suggest that when these young women perceive and experience a stressful event they are able to draw upon their coping mechanisms to help them deal with the impact of the stressor.

In examining coping with adult populations, it is generally agreed that coping reduces overall stress levels and produces positive life-long outcomes (Folkman & Lazarus, 1985; Holahan & Moos, 1994). These findings have generally been supported with cross-sectional research; few studies have examined how the process of stress and coping changes over time (Kanner et al., 1981). In the current study, however, it was

found that problem-focused coping prenatally did not predict fewer stressful events postnatally. Young women who were able to cope with the stressful situations of pregnancy were not better prepared to deal with the stressful events of being new parents. These young women experienced significant amounts of stress postnatally in spite of the coping efforts used during their pregnancy. The stressful events of parenting may have overwhelmed the coping efforts of these young women regardless of how well they had coped with stress prenatally. One explanation for these findings is that pregnancy and parenthood are distinct major life events that may severely tax the coping efforts of adolescent women (Kanner et al., 1981). In examining both pregnancy and parenthood as major life event stressors, it can be theorized that coping with one major life stressor (pregnancy) may not be strongly related to dealing with another major life stressor (parenthood). Crisis theory asserts that dramatic events that disrupt continuity in an individuals' life, such as pregnancy and parenthood, create a period of psychological turbulence during which an individual must continually reassess her/his coping capacities in order to deal with new and different life stressors (Holahan & Moos, 1990). Within this framework, these two events (pregnancy and parenthood) are separate and taxing to adolescent women regardless of their coping capabilities.

Coping and Educational Outcomes

As can be seen in the model (Figure 3), coping postnatally had a significant negative relationship with educational outcomes. This

finding suggests that teenage mothers who used more problem-focused coping had poorer educational outcomes. This negative relationship could be partially explained by stress postnatally (T2), which impacted the educational outcomes of these young women both directly and indirectly through coping (see Figure 4). These findings provide strong support for the theory that parenthood for young women creates overwhelming amounts of stress that may lead to negative lifelong outcomes (DeBolt et al., 1990).

Research suggests that it is not stress per se, but how people cope with stress, that determines the outcome of the stressful situation (Billings & Moos, 1981; Folkman et al., 1987). As has been mentioned previously, the two types of coping efforts discussed in the literature (problem-focused and emotion-focused) lead to differential levels of stress (Folkman & Lazarus, 1985). Adults who rely more heavily on emotion-focused coping tend to function less effectively (Holahan & Moos, 1990; Ebata & Moos, 1991). On the other hand, problem-solving coping has been found to have beneficial effects on the psychological health and well-being of adults (Felton et al., 1984; Wollman & Felton, 1983). In applying this information to teenage mothers, it was predicted that teenage mothers who used more problem-focused coping would have more positive educational outcomes. In examining the findings of this study, it can be clearly seen that this process did not occur.

There are two possible explanations as to why coping was negatively related to educational outcomes. One explanation may be the measure of coping used in this study. When examining the coping measure (see Appendix A), it can be seen that teen mothers are asked specifically to relate their answers to a stressful event related to parenthood. This measure did not specifically inquire as to how teenage mothers dealt with a stressful event in relation to their education. Therefore, it may be that these young women are engaging in a variety of problem-focused coping efforts in relation to parenting, but not in relation to education. Furthermore, it can be theorized that these young women are expending large amounts of energy in coping with stressful events related to parenting, and that their coping capacities are depleted by the time they must deal with educational issues. As other researchers have suggested (Hayes, 1987; Mott, 1986), teenage mothers may be experiencing many stressful "adult" transitions that make it more difficult to concentrate on educational success.

A second explanation is rooted in the conceptualization of coping used in this study. In the coping literature, coping is generally viewed on a continuum that ranges from adaptive/effective coping to maladaptive/ineffective coping (Moos & Swindle, 1990). Active coping strategies are seen as effective ways of dealing with stressful events while passive/avoidant coping strategies are usually described as maladaptive. Coping theory appears to be particularly useful in understanding the stress in adults' lives. When this theory is applied

to teenage pregnant and parenting women, it may not fully capture the coping processes of this population. It may be that coping for this subpopulation of young women is not definable as active or passive coping. Both of these coping strategies may be equally effective, given a particular stressor that the teen must cope with. What may be important in the stress and coping process for these young women is the impact that the stressor has on her coping mechanisms rather than the coping mechanisms used. The above mentioned explanation is supported by research that suggests that coping responses have different effects depending on the nature of the stressful condition (Folkman, Lazarus, & Gruen et al., 1986). Individuals who experience little control over a stressful situation tend to cope less effectively regardless of the coping strategy used. Coping strategies seem to become more helpful in areas where an individual's efforts can change the outcome of the stressful situation. It may be that teenage mothers perceive their educational goals as being out of their control regardless of the coping strategies they use to deal with educational stressors. These young women may feel that their instructors and school personnel have greater control over their educational outcomes than they do.

Social Support

Structural social support was important in aiding young pregnant women's coping processes. Researchers have hypothesized that a generalized beneficial effect of social support may occur because social networks provide individuals with regular positive experiences and a set

of stable, socially rewarding roles in the community (Thoits, 1983). Integration in a social network may help teenage pregnant women avoid negative experiences that otherwise would increase the probability of stress (Moos & Mitchell, 1982). As can be seen in Figure 3, structural support positively impacted the coping efforts of these young women during their pregnancy. These findings support the theory that rich social support networks provide an environment where individuals are more capable of utilizing their coping mechanisms.

Postnatally it was found that the number of social supporters had no impact on an adolescent mother's coping efforts. At this time period, the social support networks of parenting teenagers were not related to the problem-focused coping efforts attempted by this group of young mothers. This finding is surprising given the positive relationship that social support played for these young women while they were pregnant. In order to better understand these findings additional analyses were conducted on how the number of social supporters changed over time. It was found that young mothers lose a significant number of their social supporters by the time they give birth. One reason for this loss of support may be that pregnant teenagers deplete their supporters' abilities to help them cope postnatally. These young pregnant women may call upon their support networks constantly and continually to help cope with the stressors of pregnancy. In turn, these supporters may become fatigued and/or unable to help them cope during another stressful event (parenting). Other research on maternal support also suggests that

women who are pregnant receive higher levels of social support from their networks than do parenting women (Camp et al., 1993). This literature suggests that supporters tend to detach from the new mother in order to allow her to bond with her new infant (Cutrona, 1984; Reece, 1993). It is probably the case that teenage mothers need to bond with their young infant but not at the cost of losing support during the early stages of parenting.

Moreover, the impact of the intervention (which attempted to bolster the teens' social networks) was found to be non-significant on the social support variable at Time 2. This finding may reflect the fact that the intervention did not actually begin until the young women were at least 4 months pregnant. The beneficial effects of the intervention may not have had an opportunity to become evident by the time the T2 interview was conducted (1 month postnatally), which was when the social support measure was administered.

Self-Esteem

A positive relationship between self-esteem and problem-solving coping was supported in these data. During pregnancy, teens with higher self-esteem used more problem-solving coping strategies. Yet postnatally, this effect reversed and self-esteem became negatively related to these young parents' coping efforts. These results indicated that teenage mothers who have higher levels of self-esteem postnatally were not utilizing as many problem-solving coping mechanisms. An explanation for these findings may be found by examining the levels of

stress, social support, and self-esteem experienced by adolescent mothers. Teenage women experiencing high stress, low social support, and low self-esteem prenatally may receive a boost in self-esteem by becoming a parent that helps them to utilize their coping mechanisms more effectively. As Roosa (1986) has suggested, there is a sub-group of teens who may enhance their self-identity by becoming parents. Teenage women who have generally been unsuccessful at school and at other adolescent milestones achieve adult status and a new role by becoming parents. Teenage women who already have high self-esteem and an adequate self-identity may not derive the same meaning from this new parenting role. In other words, these young women's self-esteem was adequate before they gave birth and their new role as parents did not significantly impact their mobilization of problem-focused coping efforts postnatally.

Finally, the hypothesized relationship between self-esteem and social support was not supported. It had been proposed that higher levels of self-esteem would lead pregnant and parenting teenage mothers to obtain social support during a stressful event to help them cope. Both prenatally and postnatally this relationship failed to reach statistical significance. Research in the area of self-esteem and social support with adolescents has suggested that these two concepts are highly correlated (Barrera, 1986). These previous research findings have suggested a positive relationship between the two constructs. In the current study, a causal positive relationship between self-esteem

and social support was predicted, but not supported by the data. These findings suggest that teenage pregnant and parenting mothers who have high self-esteem do not necessarily seek the help of their supporters during a stressful event. Due to the contradictory nature of the current findings, further research in this area would benefit from the examination of how self-esteem levels lead teenage mothers to seek or not seek out social support during stressful situations. It may be the case that teenage mothers with adequate levels of self-esteem do not feel the need to impose on their social support networks to help them deal with stressful events. On the other hand, teenage mothers with low self-esteem may feel that their social support networks are the only place they can turn in periods of severe stress.

Methodological Limitations

Sample

Conducting a study on a sample of young women who sought out or were assigned to a special program for pregnant teens limits the generalizations that can be made about this study. The self-selected nature of the sample means that it only represents a subgroup of teenage pregnant and parenting women who received special educational services during their pregnancy and in the early stages of their parenting career. Young Parent Educational Development students were referred to the program by their school counselors. The main criterion for referral was scholastic problems. This process may have biased the sample towards young women who already had school problems prior to their

pregnancy. In this study, it must be noted that the average GPA of the participants was 1.16 (range = .24- 2.08) one year prior to their enrollment in the YPED program. Therefore, the generalizations of these findings must be limited to young women who may have had educational problems prior to their pregnancy and who received a special educational program.

Measurement Issues

There are two measurement issues that must be taken into consideration when examining the current findings. The first issue is in relation to the coping measure utilized. Although this measure may be an adequate instrument to assess coping with this population, the way in which the initial probe question was asked to parenting women does not adequately tap into coping in relation to school achievement. These young women were asked to think specifically about a stressful event in relation to parenting, not in relation to school, when answering the coping questions. Therefore, the failure to find a significant positive relationship between coping postnatally and educational outcomes could have been due to the way this coping measure was administered. A second measurement issue is in relation to the educational outcome variable. In this study, educational outcomes were measured by using grade point averages. It may be the case that in order to find positive significant findings between the predictor variable (coping T2) and educational outcomes a more comprehensive measure of educational success needs to be used. For example, using an index of grade point averages, school

attendance, discipline problems, and special educational needs may yield a more complete picture of the educational outcomes of these young women. In the current study, the measurement of this additional information was not possible. Records of attendance for the YPED program participants could not be used as a reliable measure as a result of inconsistencies between attendance recorded in the school district's data base and attendance records maintained by instructors of the YPED program. Discipline problems and special educational needs were considered confidential information that could not be accessed by the project.

Implications and Directions for Future Research

The results of this study suggest that a complex web of factors influence the educational outcomes of teenage mothers. One of the key issues that is brought to the forefront by the current study is why problem-solving coping postnatally has a negative effect on the educational outcomes of these young women. This relationship could be due to the way that coping is currently conceptualized in the coping literature. In general, problem-solving coping strategies are associated with better psychological outcomes, and more emotion-focused coping with poorer outcomes (Compas et al., 1988) in adult populations. Some theorists have recently proposed that the adaptive significance of problem-solving versus emotion-focused coping strategies may depend on the controllability of the stressors that are confronted (Valentiner et al., 1994). Other researchers (Moos & Schaefer, 1993) have argued that

problem-solving coping processes should be more effective in situations that are appraised as changeable and controllable. Therefore, future research with this population needs to explore not only what coping strategies adolescent mothers are using, but also how these young women perceive the stressful event that they are coping with. It may be that adolescent mothers perceive their coping strategies in relation to education as futile and ineffective no matter how they cope. The present findings should encourage further progress toward a unified conceptual understanding of the complex mechanisms involved in the coping process of adolescent mothers.

The findings of the current study are in agreement with several studies that indicate that teenage pregnant and parenting women experience large amounts of stress that may impact their quality of life (Bierman & Streett, 1982; Barth & Schinke, 1983; de Anda et al., 1992). This study suggests that even when these young women use effective coping mechanisms, have social support networks to help them cope, and have adequate self-esteem, their educational outcomes are adversely impacted by the stress of parenthood. These findings suggest that interventions with this population need to incorporate a stress management component. For example, when de Anda and associates (1990) implemented a pilot stress management program for pregnant and parenting teens, it was found that the experimental group of teens had a reduction in negative affective and cognitive responses to stress and a self-

reported increase in confidence in their ability to handle stress while the control group did not.

These stress management programs could teach pregnant adolescents: a) to become aware of their own coping strategies; b) evaluate the effectiveness of their coping strategies and the short-and long-term consequences of not using appropriate coping strategies; c) to expand their repertoire of adaptive, effective coping strategies in relation to specific stressors; d) to rehearse the new coping strategies with corrective feedback and reinforcement, and finally e) to self-evaluate the effectiveness of their new coping repertoire. Given the combined impact of the developmental tasks of adolescence and the responsibilities of adolescent motherhood, these young women may require consistent, long-term stress management programs. Although the adolescent may have limited control over the stressors in her environment, the adolescent's appraisal of her coping strategies as effective in dealing with these stressors might serve to reduce the degree of stress they engender.

Finally, this study has been valuable in expanding research on what factors may predict the educational outcomes of teenage mothers who attend a special school program for pregnant and parenting teens. Future longitudinal research in this area needs to continue to examine how stress and coping impact the lives of young women who are not in special programs. It may be that young women who attend special

programs are a different population that may function at a different level than young women who remain in their home schools.

APPENDICES

APPENDIX A

APPENDIX A

Stress Measure

Hassles Questionnaire

Instructions:

Hassles are situations or people that can be annoying in minor ways or problematic in fairly major ways. The following is a list of situations we would like you to evaluate. Please indicate:

How much of a hassle has each item been for you during the past month?

	1	2	3	4
	None or not applicable	somewhat	Moderate	A great deal
1.	Your parents or parents-in-law			
2.	Other relatives			
3.	Sex			
4.	Intimacy (or being close with your friends, and relatives)			
5.	Your supervisor, employer or teacher			
6.	Meeting deadlines or goals at work or school			
7.	Home repairs			
8.	Having enough money for necessities			
9.	Having enough money for emergencies			
10.	Having enough money for extras			
11.	Your medical care			
12.	Your health			
13.	Your physical ability			
14.	News events			
15.	Your environment			
16.	Political or social issues			

17. Cooking
18. Housework
19. Your work load
20. Homework from school
21. Car maintenance
22. Home entertainment
23. Being organized
24. Social Commitments

Coping Instrument

Ways Of Coping Questionnaire

Instructions:
Please think about a recent stressful event related to your pregnancy (or being a new parent). Tell me about that problem. Afterwards, we'll ask some questions about how you react and cope with this kind of situation.

Below is a list of things people do to cope in stressful situations. Tell me to what extent you used each of them in the situation you have just described by indicated the appropriate category.

1	2	3	4
Not used a great deal	Used somewhat	Used quite a bit	Used a Great deal

1. Just concentrated on what I had to do next--the next step.
2. Tried to get the person responsible to change her/his mind.
3. Talked to someone to find out more about the situation.
4. Criticized or lectured myself.
5. Tried not to "burn my bridges," but leave things open somewhat.
6. Hoped a miracle would happen.
7. Went on as if nothing had happened.
8. Tried to keep my feelings to myself.
9. Expressed anger to the person(s) who caused the problem.
10. Tried to forget the whole thing.
11. Changed or grew as a person in a good way.
12. Apologized or did something to make up.
13. Made a plan of action and followed it.
14. Let my feelings out somehow.
15. Realized I brought the problem on myself.
16. Came out of the experience better than when I went in.
17. Talked to someone who could do something concrete about the problem.
18. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, and so forth.

19. Tried not to act too hastily or follow my first hunch.

20. Found new faith.

21. Rediscovered what is important in life.

22. Changed something so things would turn out all right.

23. Didn't let it get to me; refused to think too much about it.

24. Asked a relative or friend I respected for advice.

25. Kept others from knowing how bad things were.

26. Made light of the situation; refused to get too serious about it.

27. Talked to someone about how I was feeling.

28. Stood my ground and fought for what I wanted.

29. Knew what had to be done, so I doubled my efforts to make things work.

30. Made a promise to myself that things would be different next time.

31. Wished that the situation would go away or somehow be over with.

32. Had Fantasies or wished about how things might turn out.

33. Are there any other ways you cope that I have not yet mentioned? _____ How often do you use it?

Social Support Measures

The Inventory of Socially Supportive Behaviors

Instructions:

We are interested in learning about some of the ways that you feel people have helped you or tried to make life more pleasant for you over the past four weeks. I will read a list of activities that other people might have done for you, to you, or with you in recent weeks. Please listen to each item carefully and tell me how often these activities happened to you during the past four weeks.

1	2	3	4	5
Not at all	Once or twice a week	about once a week	Several times a week	about every day

During the past four weeks, how often did other people do these activities for you, to you, or with you:

1. Looked after a family member when you were away.

2. Was right there with you (physically) in a stressful situation.

3. Provided you with a place where you could get away for a while.

4. Watched after your possessions when you were away (pets, plants, home, apartment, etc.)

5. Told you what she/he did in a situation that was similar to yours.

6. Did some activity with you to help you get your mind off of things.

7. Talked with you about some interests of yours.

8. Let you know that you did something well.

9. Went with you to someone who could take action.

10. Told you that you are OK just the way you are.

11. Told you that she/he would keep the things that you talk about private--just between the two of you.

12. Assisted you in setting a goal for yourself.

13. Made it clear what was expected of you.

14. Expressed esteem or respect for a competency or personal quality of yours.

15. Gave you some information on how to do something.

16. Suggested some action that you should take.

17. Gave you over $25.00 to keep.

18. Comforted you by showing you some physical affection.

19. Gave you some information to help you understand a situation you were in.

20. Provided you with some transportation.

21. Checked back with you to see if you followed the advice you were given.

22. Gave you under $25.00 to keep.

23. Helped you understand why you didn't do something well.

24. Listened to you talk about your private feelings.

25. Loaned or gave you something (a physical object other than money) that you needed.

26. Agreed that what you wanted to do was right.

27 Said things that made your situation clearer and easier to understand.

28. Told you he/she felt in a situation that was similar to yours.

29. Let you know that he/she will always be around if you need assistance.

30. Expressed interest and concern in your well-being.

31. Told you that she/he feels very close to you.

32. Told you who you should see for assistance.

33. Told you what to expect in a situation that was about to happen.

34. Loaned you over $25.00.

35. Taught you how to do something.

36. Gave you feedback on how you were doing without saying it was good or bad.

37. Joked and kidded to try to cheer you up.

38. Provided you with a place to stay.

39. Pitched in to help you do something that needed to get done.

40. Loaned you under $25.00.

Self-Esteem Measure

ROSENBERG SELF-ESTEEM SCALE

Instructions:

For each of the following 10 items please tell me the number which best matches how you feel about yourself. Use the following scale to complete your answers.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

1. I feel I'm a valuable person, at least equal with others.
2. I feel that I have a number of good qualities
3. I feel I do not have much to be proud of.
4. I am able to do things as well as most other people.
5. All in all, I tend to feel I am a failure.
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.
9. I certainly feel useless at times.
10. At times I think I am no good at all.

APPENDIX B

APPENDIX B

Table 4 - Psychometric Properties of the Hassles Scale Time 1

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
1. Your parents or parents-in-law	1.64	1.51	.39
2. Other relatives	1.75	1.40	.22
3. Sex	0.86	1.35	.21
4. Intimacy	1.25	1.37	.35
5. Your supervisor, employer or teacher	1.07	1.35	.46
6. Meeting deadlines or goals at work or school	1.68	1.41	.47
7. Home repairs	0.98	1.36	.38
8. Having enough money for necessities	2.17	1.55	.42
9. Having enough money for emergencies	1.71	1.52	.43
10. Having enough money for extras	2.21	1.34	.36
11. Your medical care	0.89	1.46	.35
12. Your health	1.32	1.53	.46
13. Your physical ability	1.32	1.41	.42
14. News events	0.77	1.19	.32
15. Your environment	1.46	1.40	.40
16. Political or social issues	1.08	1.32	.33
17. Cooking	1.05	1.44	.43
18. Housework	1.51	1.49	.41

TABLE - 4 Psychometric Properties of the Hassles Scale Time 1(Cont'd)

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
19. Your work load	1.40	1.36	.53
20. Homework from school	1.45	1.49	.49
21. Car maintenance	0.47	1.05	.20
22. Home entertainment	1.04	1.22	.49
23. Being organized	1.47	1.39	.39
24. Social Commitments	1.51	1.43	.45
Alpha= .84	Scale Mean= 32.08		Scale SD= 15.57

TABLE - 5 Psychometric Properties of the Hassles Scale Time 2

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
1. Your parents or parents-in-law	1.57	1.46	.27
2. Other relatives	1.77	1.34	.31
3. Sex	0.90	1.36	.38
4. Intimacy	1.40	1.47	.54
5. Your supervisor, employer or teacher	0.98	1.30	.44
6. Meeting deadlines or goals at work or school	1.63	1.35	.37
7. Home repairs	1.04	1.34	.40
8. Having enough money for necessities	2.40	1.35	.39
9. Having enough money for emergencies	1.96	1.48	.44
10. Having enough money for extras	2.28	1.36	.21
11. Your medical care	0.88	1.41	.53
12. Your health	1.10	1.39	.58
13. Your physical ability	1.14	1.35	.51
14. News events	0.87	1.18	.48
15. Your environment	1.42	1.42	.48
16. Political or social issues	0.86	1.29	.48
17. Cooking	1.08	1.42	.45
18. Housework	1.52	1.41	.47
19. Your work load	1.40	1.33	.49
20. Homework from school	1.64	1.51	.34

TABLE - 5 Psychometric Properties of the Hassles Scale Time 2 (Cont'd)

21. Car maintenance	0.62	1.30	.28
22. Home entertainment	1.00	1.31	.62
23. Being organized	1.83	1.45	.48
24. Social Commitments	1.37	1.37	.52
Alpha= .88	Scale Mean= 32.70	Scale SD= 16.51	

TABLE - 6 Psychometric Properties of the Problem Focused Ways of Coping Subscale at Time 1

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
1. Talked to someone to find out more about the situation	2.52	1.09	.45
2. Expressed anger to the person(s) who caused the problem	2.54	1.21	.33
3. Apologized or did something to make up	1.92	1.02	.46
4. Made a plan of action and followed it	2.10	0.99	.39
5. Let my feelings out somehow	2.75	1.06	.57
6. Talked to someone who could do something concrete about the problem	2.28	1.06	.53
7. Found new faith	1.92	0.92	.34
8. Asked a relative or friend I respected for advice	2.73	1.06	.54
9. Talked to someone about how I was feeling	2.64	1.07	.55
10. Stood my ground and fought for what I wanted	2.55	1.10	.40
11. Knew what had to be done, so I doubled my efforts to make things work	2.45	1.05	.47
Alpha= .80	Scale Mean= 26.39	Scale SD= 6.71	

TABLE - 7 Psychometric Properties of the Problem Focused Ways of Coping Subscale at Time 2

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
1. Talked to someone to find out more about the situation	2.73	1.02	.38
2. Expressed anger to the person(s) who caused the problem	2.29	1.24	.32
3. Apologized or did something to make up	2.01	1.00	.37
4. Made a plan of action and followed it	2.29	0.90	.38
5. Let my feelings out somehow	2.61	1.05	.53
6. Talked to someone who could do something concrete about the problem	2.45	1.02	.51
7. Found new faith	2.01	0.89	.42
8. Asked a relative or friend I respected for advice	2.72	0.97	.43
9. Talked to someone about how I was feeling	2.62	0.94	.48
10. Stood my ground and fought for what I wanted	2.40	1.09	.56
11. Knew what had to be done, so I doubled my efforts to make things work	2.62	0.96	.50
Alpha= .79	Scale Mean= 26.77	Scale SD= 6.28	

TABLE - 8 Psychometric Properties of the Inventory for Socially Supportive Behaviors Scale at Time 1

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
1. Looked after a family member when you were away	1.91	1.33	.15
2. Was right there with you (physically) in a stressful situation	3.37	1.41	.50
3. Provided you with a place where you could get away for awhile	3.05	1.43	.45
4. Watched after your possessions when you were away	2.35	1.55	.28
5. Told you what she/he did in a situation that was similar to yours	2.54	1.18	.35
6. Did some activity with you to help you get your mind off of things	2.98	1.33	.50
7. Talked with you about some interests of yours	2.96	1.33	.61
8. Let you know that you did something well	3.19	1.35	.63
9. Went with you to someone who could take action	2.23	1.22	.42
10. Told you that you are OK just the way you are	3.48	1.36	.64
11. Told you that she/he would keep the things that you talk about private--just between the two of you	3.45	1.43	.53
12. Assisted you in setting a goal for yourself	3.01	1.35	.50
13. Made it clear what was expected of you	2.98	1.47	.54

TABLE - 8 (cont'd)

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
14. Expressed esteem or respect for a competency or personal quality of yours	2.94	1.25	.58
15. Gave you some information on how to do something	3.02	1.20	.51
16. Suggested some action that you should take	2.85	1.18	.48
17. Gave you over $25.00 to keep	2.16	1.17	.41
18. Comforted you by showing you some physical affection	3.05	1.42	.56
19. Gave you some information to help you understand a situation you were in	2.96	1.14	.60
20. Provided you with some transportation	3.88	1.25	.35
21. Checked back with you to see if you followed the advice you were given	2.61	1.19	.56
22. Gave you under $25.00 to keep	2.49	1.25	.50
23. Helped you understand why you didn't do something well	2.42	1.15	.60
24. Listened to you talk about your private feelings	3.34	1.41	.52
25. Loaned or gave you something (a physical object other than money) that you needed	2.74	1.28	.58
26. Agreed that what you wanted to do was right	2.82	1.15	.41
27. Said things that made your situation clearer and easier to understand	3.07	1.18	.63
28. Told you he/she felt in a situation that was similar to yours	3.01	1.27	.52

TABLE - 8 (cont'd)

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
29. Let you know that he/she will always be around if you need assistance	4.05	1.13	.53
30. Expressed interest and concern in your well-being	3.59	1.27	.65
31. Told you that she/he feels very close to you	3.66	1.34	.59
32. Told you who you should see for assistance	2.24	1.15	.43
33. Told you what to expect in a situation that was about to happen	3.06	1.21	.51
34. Loaned you over $25.00	1.63	0.95	.22
35. Taught you how to do something	2.72	1.30	.53
36. Gave you feedback on how you were doing without saying it was good or bad	2.70	1.17	.56
37. Joked and kidded to try to cheer you up	3.81	1.27	.44
38. Provided you with a place to stay	4.01	1.47	.33
39. Pitched in to help you do something that needed to get done	3.39	1.28	.58
40. Loaned you under $25.00	1.79	0.99	.26
Alpha= .93	Scale Mean= 117.51	Scale SD= 26.62	

TABLE - 9 Psychometric Properties of the Inventory for Socially Supportive Behaviors Scale at Time 2

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
1. Looked after a family member when you were away	2.77	1.26	.30
2. Was right there with you (physically) in a stressful situation	3.79	1.18	.40
3. Provided you with a place where you could get away for awhile	3.30	1.41	.38
4. Watched after your possessions when you were away	2.79	1.53	.47
5. Told you what she/he did in a situation that was similar to yours	2.91	1.24	.39
6. Did some activity with you to help you get your mind off of things	2.86	1.19	.51
7. Talked with you about some interests of yours	2.91	1.31	.52
8. Let you know that you did something well	3.44	1.21	.53
9. Went with you to someone who could take action	2.35	1.25	.45
10. Told you that you are OK just the way you are	3.53	1.28	.55
11. Told you that she/he would keep the things that you talk about private--just between the two of you	3.44	1.27	.42
12. Assisted you in setting a goal for yourself	3.20	1.31	.55
13. Made it clear what was expected of you	3.24	1.31	.48

TABLE - 9 (cont'd)

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
14. Expressed esteem or respect for a competency or personal quality of yours	3.08	1.16	.59
15. Gave you some information on how to do something	3.35	1.23	.50
16. Suggested some action that you should take	3.17	1.16	.45
17. Gave you over $25.00 to keep	2.46	1.31	.51
18. Comforted you by showing you some physical affection	3.19	1.38	.53
19. Gave you some information to help you understand a situation you were in	3.31	1.17	.63
20. Provided you with some transportation	4.19	1.00	.30
21. Checked back with you to see if you followed the advice you were given	2.99	1.21	.53
22. Gave you under $25.00 to keep	2.64	1.17	.32
23. Helped you understand why you didn't do something well	2.61	1.16	.56
24. Listened to you talk about your private feelings	3.47	1.28	.51
25. Loaned or gave you something (a physical object other than money) that you needed	3.15	1.24	.51
26. Agreed that what you wanted to do was right	3.07	1.15	.54
27. Said things that made your situation clearer and easier to understand	3.12	1.09	.59
28. Told you he/she felt in a situation that was similar to yours	3.04	1.11	.51

TABLE - 9 (cont'd)

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
29. Let you know that he/she will always be around if you need assistance	4.12	1.07	.48
30. Expressed interest and concern in your well-being	3.70	1.21	.53
31. Told you that she/he feels very close to you	3.64	1.34	.45
32. Told you who you should see for assistance	2.76	1.31	.59
33. Told you what to expect in a situation that was about to happen	3.06	1.15	.50
34. Loaned you over $25.00	1.88	1.07	.31
35. Taught you how to do something	2.88	1.22	.43
36. Gave you feedback on how you were doing without saying it was good or bad	2.97	1.17	.56
37. Joked and kidded to try to cheer you up	3.76	1.09	.47
38. Provided you with a place to stay	3.79	1.56	.30
39. Pitched in to help you do something that needed to get done	3.73	1.11	.48
40. Loaned you under $25.00	2.08	1.08	.38
Alpha= .93	Scale Mean= 117.51	Scale SD= 26.62	

TABLE - 10 Psychometric Properties of the Rosenberg Self-Esteem Scale Time 1

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
1. I feel I'm a valuable person, at least equal with others (R)	3.18	0.61	.47
2. I feel that I have a number of good qualities (R)	3.20	0.61	.28
3. I feel I do not have much to be proud of	3.14	0.73	.54
4. I am able to do things as well as most other people (R)	3.20	0.57	.25
5. All in all, I tend to feel I am a failure	3.38	0.67	.59
6. I take a positive attitude toward myself (R)	3.01	0.71	.54
7. On the whole, I am satisfied with myself (R)	3.11	0.71	.65
8. I wish I could have more respect for myself	2.70	0.89	.46
9. I certainly feel useless at times	2.74	0.90	.56
10. At times I think I am no good at all	2.91	0.95	.62
Alpha= .82	Scale Mean= 30.67	Scale SD= 4.57	

Note. R= item was reverse scored

TABLE - 11 Psychometric Properties of the Rosenberg Self-Esteem Scale Time 2

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlations
1. I feel I'm a valuable person, at least equal with others (R)	3.21	0.66	.46
2. I feel that I have a number of good qualities (R)	3.18	0.64	.44
3. I feel I do not have much to be proud of	3.25	0.79	.52
4. I am able to do things as well as most other people (R)	3.16	0.62	.37
5. All in all, I tend to feel I am a failure	3.38	0.72	.64
6. I take a positive attitude toward myself (R)	3.12	0.72	.50
7. On the whole, I am satisfied with myself (R)	3.16	0.65	.52
8. I wish I could have more respect for myself	2.77	0.91	.43
9. I certainly feel useless at times	2.84	0.89	.47
10. At times I think I am no good at all	3.07	0.88	.62
Alpha= .81	Scale Mean= 31.16	Scale SD= 4.59	

Note. R= item was reverse scored

APPENDIX C

APPENDIX C

Lansing School District
Young Parents Educational Development

MENTORS OF MOTHERS PROGRAM
INFORMED CONSENT FORM

I hereby acknowledge that I have read a description of the Mentors of Mothers Program and the details of this research project, including its potential risks and benefits, have been explained to me and my daughter either by letter or by a project representative. It is my understanding that if I and my daughter consent to participate, my daughter will be paid $30.00 for participating in each of three data collections to occur during the project ($5.00 for the first interview, $10.00 for the second one, and $15.00 for the third one). These data collection procedures will involve three interviews with a trained project staff member and a brief interaction between mother and baby will be videotaped. Each interview will take about two hours. The videotape session will take 30 minutes. My daughter will also be asked to complete a variety of questionnaires and assessments about her experiences and feelings to determine the best ways to bring about positive relationships between teenage parents and children. There are no "right" or "wrong" answers to these questions; the project staff are truly interested in my daughter's opinions about these matters. I understand that records concerning my daughter's health and her child's health will be accessed by the project.

I freely give my consent for participation in this project and understand that I may withdraw my consent for participation at any time without jeopardizing my daughter's participation in the original YPED program. Also, I understand that all information gathered by the project will be kept in strict confidence and my daughter's identity will not be revealed in any report of the research findings. At my daughter's request, and within these restrictions, the results of the research will be made available to her. If I have any questions or concerns about participating in this project I can call Marian Phillips or Mary Suurmeyer, 374-4434.

_____	_____
Date	Parent's/Guardians Signature if Participant is Under 18
_____	_____
Date	Participant's Signature
_____	_____
Date	Program Representative's Signature

APPENDIX D

APPENDIX D

MANUAL FOR PSYCHOLOGY 490 STUDENTS

ADOLESCENT PREGNANCY PROJECT

Prepared by:

Angela DeRosa, Bianca Guzmán, & Shasha Camaj

IMPORTANT INFORMATION AT A GLANCE

Addresses and Telephone #'s:

YPED/Marian Phillips 500 W. Lenawee (main office:207) Lansing, MI 48912 Also, these two women may be able to assist you if Marian is not available: Geri Shepherd (Supervisor, Adult & Community Ed) Mary Suurmeyer (Program Coordinator)	325-6813
Bianca's Office 38 Baker Hall	353-6449
G. Anne Bogat, Ph.D. 448 Baker Hall	353-0812
Project Office (Lab) 446 Baker Hall	353-0812
Bianca Guzmán (Home)	887-2930
Stephanie Pappas (Home)	482-6210

What to include when turning in an interview (i.e. - every piece of paper that you turn in with anything hand written + scantrons):

1. **Teen's name**
2. **Date of the interview**
3. **Your name**
4. **What interview it is--i.e. T1, T2, or T3**
5. **Teen I.D. number--If T1 interview, bubble in 000**
   -If T2 or T3, bubble the correct I.D. on the scantron
   -If mother interview, change the 4th # to "2" and bubble it in

INTRODUCTION

Welcome to the Adolescent Pregnancy Project at Michigan State University, a joint research project with the Lansing School District. Your experience as an Independent Study student on this project will enable you to experience the research process in action. While you participate in this project, you will learn about family dynamics, issues that impact adolescents who have babies at a young age, interviewing techniques, and data collection. This manual is intended to be a guide. However, you are responsible for referring to it on a regular basis. A helpful suggestion is to keep interview packets on hand while reviewing this manual. After a few weeks of working with the project, all the material contained in this manual will become second-nature to you. If you have questions not considered in this manual, please direct them to your supervisor, so that she can update this manual for future 490 students.

GENERAL DESCRIPTION OF THE PROJECT

The Adolescent Pregnancy Project is a longitudinal research study that follows pregnant adolescents from before the birth of their child until their child is six months of age. It is a joint project between MSU and the Lansing School District's Young Parents Educational Program (YPED). Professor G. Anne Bogat, from MSU, heads the research component of the project; Marian Phillips, at YPED, coordinates the service component of the project. Approximately six independent study or 490 psychology students are recruited to interview pregnant and parenting teenagers and their mothers as part of a study investigating the stresses and supports that teens use to cope with pregnancy and parenting.

Who are the Teens in the Adolescent Pregnancy Project?

Teens in this study are enrolled in YPED. Attendance at YPED is voluntary; teens can attend if they do not want to continue attending

their home school. Usually teens choose YPED because of the services that are offered there. For example, the teens learn about pregnancy and take child birth classes, as well as classes on how to be a better parent. Teens may enroll in the program at any time during their pregnancy. They come from all the Lansing area schools, different types of home environments, and all walks of life.

Most of the adolescents are from lower socio-economic status (SES) families that live in the Greater Lansing area. The largest ethnic group represented is African American, followed by Chicano/Mexican American, Latino/Hispanic, Caucasian, and North American Indian/Native American. Asian Americans rarely enroll.

The average age of the pregnant teen is 15 years, with a range of 12-18. Many of the teens have mothers that were teen moms themselves.

The following is a description of YPED adolescents that a former 490 on this project wrote for the benefit of new 490s.

> *Imagine that you've never had your own closet, your own comb, maybe even if you have a toothbrush, you can't call it your own. Imagine that you don't even know what it means to get your teeth cleaned in a dentist's office. You've never had any of the neat stuff that TV families have: your own bedroom; fluffy, luxurious comforters; books; bookshelves; your own television set; your own stereo; multiple bathrooms (that work). Your lips crack and you don't have a budget for lip gloss or balm, so you occasionally use the big jar of petroleum jelly in the bathroom for lip balm, for lotion, for hair oil, for whatever. Your family has no car, so the family shops within walking distance. Your diet includes very few vegetables and fresh or canned fruit. Your dad's not around for whatever reason; perhaps he was only a brief "love" affair for your mother who can't seem to hang on to a man*

for more than a few months. Maybe mom can only hang around for a few months at a time herself. Maybe it's dad who raised you, sort of, because your mom disappeared, or is in jail/prison, or is just hanging out trying to get high any way she can. She's been "escaping" all her adult life. You were born when she was 13.

What if there is only cold water in your house because the money for the electric/gas bill was used by your parent(s) for drugs, or your mom, dad or both parents are laid off from their factory jobs and are not the kind of folks who can take advantage of additional schooling because they are not academically inclined? What if you have two parents who both work, but who are so immature and self-absorbed that they forget you exist? You are 13, 14, 15 and you have never had a heart-to-heart conversation with your mother or your dad because you don't really exist to them. What if you seek verification of your existence so desperately that you become enamored of the first person who comes along and makes you feel "special?" When that person dumps on you, do you (a) look for someone else or (b) realize that feeling special comes from inner wholeness, not sexual exploitation? Does being pregnant make you exist--finally? Does being pregnant finally make your parents "see" you? What about <u>The Brady Bunch</u> and <u>Happy Days</u> and the Cosbys? These people do not really exist for you. They are abstracts--"what ifs?"

Guess who else is an abstract entity to YPEDers?--almost everyone involved with administering the program. In many cases, the feeling is reciprocal. I think that most people involved with the program see YPEDers as a collective blob of doomed humanity--people who have made some poor choices because they are inherently

immoral and why bother with them anyway? They will just keep having babies and living on welfare. Right?

What I learned . . . was that some of these young women are very bright. Others are potential martyrs. Some are slow-learners. Some have suffered physical and emotional abuse probably all their lives at home, and now they choose relationships where the abuse continues. Their children will probably continue the cycle. Some of these young women are just terribly gullible and haven't a clue as to how to make a wise choice. I learned that a few use drugs and/or alcohol to escape from their realities of crowded, dirty anti-Cosby/Brady households where the only income is from a government which has not yet figured out what to do with people who have always been disenfranchised from the "American Dream."

Before the cynics among you accuse me of bleeding-heart liberalism, let me say that I believe in self-reliance, but there has to be a "self" on which to rely. I personally know people who absolutely will not ever attempt to enter the work world as long as they can be paid to work. Simple laziness? Perhaps. But, for most folks, it is probably a lot more complicated than that. It has to do with hopelessness, despair, no sense of self-worth, no role models, no basic motivation, no realistic exposure to alternatives, no realistic or concrete plans for changing or escaping an oppressive situation. This is admittedly a socialist perspective on work, but I've talked with enough college-bound inner-city youth to know that many, when asked what they "want" to do or what they are "interested" in doing, say something like "business administration"--another abstraction. What does that mean and why? Who taught them to say that?

I need to step down off my socialist soapbox to get back to the purpose of this paper--which is to, hopefully, provide some practical insights for use in the 490 training manual. There was a time when I was 17, pregnant, on welfare and living with my mom and several siblings (older and younger) in substandard housing (crawling with mice and roaches) on Lansing's Westside. There were a number of junkies, alcoholics and assorted other folks who hung around daily. It was very late in my pregnancy. On one memorable day an ex-fiance (from my 16th year) stopped by to make fun of me for winding up "pregnant" by someone else after I broke off our engagement. He took a cruel delight in tormenting me.

Being pregnant was difficult in itself because I was nauseous for the entire 9 months. I was also terribly depressed. I believe that is why my first child has always been a relatively unhappy person and has no desire to have children herself.

What does all this mean? It's simple, really. When you go into a house or sit down at YPED to talk to [one of the teens], you are not talking to some indistinguishable segment of an abstraction. You are dealing with someone who may fit under one, some, or all of the following headings: sensitive, frightened, addicted, tormented, gullible, brilliant, unloved, physically abused, destitute, totally alone, responsible for 6 other people, emotionally abused, poor, working-class, unchallenged, unmotivated, self-sacrificing, tyrannical, ignorant, sophisticated, charismatic, tired, sick, doomed, high-achiever, low-achiever, average-achiever, great cook, physically beautiful, athletic, bookish, math-genius, maternal, well-organized, creative, artist. Your contact with the student/mom/YPEDer may serve to reinforce an already negative self-image, or it may be

what ignites the motivation needed to overcome current setbacks. It may mean absolutely nothing, or it may only have the slightest meaning. This information is not meant to suggest that you try to be an "agent of salvation" for YPEDers. I do want to send a strong message that judgements and narrow categorizations are counter-productive.

The young women who are the "target" population of YPED are no more "all alike" than are [any of the students or staff who work on this project].

Written by Lovalerie King, Fall, 1993

Student Responsibilities

You will be trained to administer batteries of questionnaires to teenagers and their mothers. There is also the opportunity to learn to perform cognitive assessments of six month old infants. Interviews take place in the teen's home, over the telephone, and at YPED. You will be interviewing the teens when they are 5 months pregnant (Time 1 interview or T1), when the baby is four weeks old (Time 2 interview or T2), and when the baby is 6 months old (Time 3 interview or T3). You will also interview the teen's mother or female guardian (grandmothers) when the teen is five months pregnant (T1) with a separate telephone interview. You will not interview the same person twice. The teen receives $5 for the first interview (T1), $10 for the second (T2) and $15 for the last (T3). The grandmother does not receive monetary compensation for her participation.

Whenever you begin your participation with the project, you must be able to sign up for at least two semesters. You must have blocks of time during the week (at least 2 hour blocks) during which you can interview teens and their mothers (grandmothers). To aid in your understanding of course expectations, a copy of the syllabus is provided on the following pages.

SYLLABUS

PSY 490: Independent Study
Field Research and Data Gathering
Project: Adolescent Pregnancy Project

SUPERVISOR
Bianca Guzmán
37 Baker Hall
353-6449(W)
887-2930(H)

UNDERGRADUATE ASSISTANT
Stephanie Pappas
445 Baker Hall
482-6210(H)

Course Purpose

We emphasize a team approach. Because of the complexities of working with our population (pregnant teens), maximum flexibility and cooperation among all members on the Adolescent Pregnancy Project is crucial to our success.

This course is the first in a multiple-semester sequence of field research and data gathering methods. The overall sequence is designed to provide you with competencies and skills in interviewing techniques, data collection, data coding, and a general introduction to the tenets of community psychology as it relates to teen pregnancy and prevention of child abuse/neglect.

The first semester is an introduction to the Mentors of Mothers Project, training in interviewing skills, and assignment of interviewing cases. The next semester will focus on completion of interviews as well as further discussion of teen pregnancy/parenting, field research issues, and community psychology.

Format

This course will involve several components including: weekly training and discussion of relevant psychological concepts; interview case responsibility; homework; and weekly supervision of interview progress. Research meetings are mandatory. We will meet weekly for a designated hour and a half throughout the year. There will not be any midterm or final exams for this course, though you will be expected to work a full schedule through finals week.

Weekly Discussion/Training/Supervision

A journal detailing your impressions of each interview/interviewee, unusual circumstances regarding interviews, tracking information, and other relevant issues will be turned in every week. At the top left hand corner of your journal entry you are required to write down the number of hours that you dedicated to the project for the week. Further, students should come to meetings prepared to discuss any readings that are assigned for the week. Part of your grade will be based on class discussion and participation. Class meetings are the time for you to clarify anything that may be unclear.

Case Responsibility

The adolescents you will be interviewing (referred to as "cases" for ease of discussion) will be assigned on a random basis. Efforts will be made to divide cases equally among students, although 490's who have signed up for more credits will obviously be conducting more interviews. The minimum amount of credits that you can sign up for is two, this means that you must dedicate 6 hours a week to the project.

Students enrolled for 3 credits must dedicate 9 hours a week for the project. Case responsibility is a major part of your grade, and the most important part of this course. For each interview you must:

1) maintain confidentiality (see grading criteria)
2) contact the interviewee
3) conduct the interviews correctly and on time
4) code the interviews correctly and on time
5) report case proceedings to your supervisor
6) hand in all materials on time and receive supervision from supervisor/undergraduate assistant

Grading Criteria

Due to the unique nature of this course, the criteria for determining grades may be somewhat different than that to which you are accustomed. Before you commit yourself to participation in this class, please be sure that you fully understand this set of criteria, as there will be no exceptions.

Attendance and Class Participation

For each semester, 50% of your grade is determined by your attendance and participation in class. Attendance is important for coordination of the project and to teach you various aspects of the interviewing process. Therefore, two or more absences will constitute a failing grade. If you miss class it is imperative that you contact your supervisor either beforehand or within one day of your absence so that you can make up what you have missed. When you miss a class, you will get a 0.0 for your attendance grade that week. Tardiness will also result in a grade reduction for that week. Class participation will also be expected every week and includes sharing current events, asking questions, discussing relevant issues/concepts, and actively listening and providing feedback to your classmates.

Case Responsibility

After training is complete and you begin interviewing, 50% of your grade will be determined by your accurate and timely completion of case responsibilities (see Criteria for Calculating Case Responsibility). In addition, interviewers must demonstrate a reasonable amount of diligence and flexibility in attempting to contact interviewees and setting up interviews/contacts. It is the interviewer's responsibility to keep her supervisor informed and up-to-date on any problems that may exist. This should be done as soon as the problem arises -- not when the interview is past due.

All interviewers are expected to conduct themselves in a professional manner with the adolescents and their families. This includes keeping scheduled appointments, being on time, conducting quality interviews, and treating all persons with respect and common courtesy.

Exceptions to the Grading Criteria

1. Anyone violating the confidentiality of the adolescents in this project will automatically be terminated as an interviewer and will receive a 0.0. Confidentiality means not discussing the information our adolescents provide on the questionnaires (or anything about their living situation) with anyone, including roommates, boyfriends, and great-aunts that live in Australia. It is still considered a breach of confidentiality even if you share information without revealing the

adolescent's name. To protect the adolescent's confidentiality, you cannot have anyone who does not work on our project accompany you to the teen's house, even if it is just to drop you off. Please be sure to always keep your interview folders in a private, secure place. Also, please conduct telephone conversations away from any roommates or family members you may live with. It is only appropriate to discuss your cases with your supervisor and PSY 490 classmates on this project.

2. We reserve the right to not assign cases to interviewers whom we feel have not demonstrated an adequate grasp of the interviewing techniques or interviewing process. Should this occur, you will be terminated from the project and will receive a 0.0 for the semester. We will not take such action without making every effort on our part to resolve the problem(s) first.

Criteria for Calculating Case Responsibility

Case responsibility grades will be calculated in the following way:

4.0 - Interview is completed on time or the most diligent effort possible was made to do so. Journals, progress reports, interviews, and written questions are filled out without any errors. Interview (oral and written) was completed without any errors.

3.0 - Interview is completed on time or the most diligent effort possible was made to do so. Journals, progress reports, interviews, and written questions are filled out with less than 3 minor errors. Interview (oral and written) was completed with less than 2 minor errors.

2.0 - Interview was not completed in a timely fashion either due to lack of diligence on the part of the interviewer and/or paperwork is filled out with 3-5 errors and/or interview (oral and written) was completed with 2-4 errors.

1.0 - Interview was either not completed in a timely fashion due to negligence on the part of the interviewer and/or paperwork is filled out with more than 7 errors and/or interview (oral and written) was completed with more than 6 errors.

Journal Entries/Expectations

Journal entries should contain information that specifies how you have spent your time on this project. You will be recording anything that is relevant to the project.

Each week you are given a list of new interview assignments with a few new names. Because it is difficult at times to contact a teen without making numerous attempts, be sure to include any efforts that you have made in your journal, even if you only got a busy signal on the phone. This enables your supervisor to gauge whether or not this teen should be dropped from the project due to the inability to locate. Noting your efforts in your journal also helps your supervisor know how hard you are working on contacting the teen. Be sure to include a breakdown of time spent for each day in addition to a total of your time at the end of each week.

A journal entry may look something like this:

Typical Journal Entry

November 8 - 30 min.

I called Sally James's house after school was out, but she wasn't home yet. Her mom (I think) said to try back later because she was at basketball practice.

I called Theresa Brown. Her number was disconnected, so I called Marian at YPED to get information about Theresa. Marian said that Theresa had moved and gave me a number of an aunt to call to try and locate her. I called the aunt and she gave me the new address - 382 W. Pine. She said that Theresa didn't have a phone yet. I'll make a home visit in the afternoon on Wednesday.

I called Sally James again. She still wasn't home and her little brother(?) said he wasn't sure when she would be back. I will try tomorrow.

November 9 - 20 min.

I called Sally James's house and her brother(?) answered again. He said he wasn't sure when she would be home, and that I could try back later. I called Marian to find out if there were any other contacts for this teen, but she said that number was the only information that she had.

I called Sally again and she was home. She said that there was a lot going on right now in her family and asked if I could call her back in a few weeks to schedule an interview. I reminded her that it only takes about an hour and that she could pick up her money after we were through. She agreed to get it out of the way, so we scheduled an appointment for Thursday at 4:00.

November 10 - 30 min.

I drove to Theresa's house to set up a time to do the interview. She was home and said that we could do the interview right then if I wanted to. I didn't bring my packet so I had to reschedule for Thursday at 5:00.

You may also want to include in your journal any new information that you have received since the last meeting. This can be a good way to inform your supervisor of any changes that have occurred. A 490 was assigned a particular teen that said she was moving to Arkansas after her T2 interview. Because the 490 had recorded it in her journal, future 490's knew to check to see if she had moved back by the time her T3 interview was due.

You are welcome to include any personal thoughts concerning the teen or the home environment in your journal. Sometimes you will notice things that are unusual yet trivial, while other times you may notice something very important. For example, a 490 on a home visit noticed that the teen was feeding her newborn baby milk from a carton, not formula. This would not be the appropriate age for a baby to be drinking cow's milk. By writing things like this in your journal, you can help alert the project, so that we can either help the teen learn more effective parenting techniques or find someone or an agency who can help her.

In order for your supervisor to determine whether you completed an acceptable amount of hours working on the project in one week, you must include a summary of the following tasks in your journal:

1) phone contacts concerning the teen, whether these are to Marian, the teen's mother, or to your supervisor for help
2) the actual amount of time spent conducting the interview, including 15 minutes or less for driving time, one way

3) any driving time spent looking for a teen or making a home visit for the initial contact
4) an hour of class meeting time, where you will discuss your case load
5) time spent reading and writing summaries for articles that were assigned in class.
6) a total of your time at the end of your journal
You **may not** include the time it takes you to write in your journal, or any amount of driving time over the described limits.Remember that the journal is one of the ways that your supervisor has to grade your performance.

END OF SYLLABUS

YOUR TRAINING

Your training will consist of the following: You will observe other trained 490's administering an adolescent interview. You will also submit a taped role play of a T2 and a T3 adolescent interview. You may do this with another 490 or one of your friends, keeping track of your time in your journal. You will then be observed twice while conducting an interview, which is usually a T1. When you and your supervisor feel comfortable with your progress, you will be assigned your own case load. (Remember: T1 interviews occur in the fifth month of pregnancy, T2 interviews occur one month after the baby is born, and T3 interviews occur when the baby is six months old.)

PREPARING FOR AND CONDUCTING A TEEN INTERVIEW

Contacting Teens

Contacting Teens for T1 Interviews. You will receive a list of names from your supervisor during class. Teens that need a T1 interview are usually attending YPED on a regular basis, so the best place to conduct the interview is at YPED. Go to YPED (500 W. Lenawee, Lansing) in the morning around 7:30 and check into the main office, Room 123. Give the secretary your student I.D. number and tell her that you are with the project from MSU. The reason you are required to do this is because you are accessing confidential information not given to the general public. Ask to see Marian Phillips--she may not be there until 8:00 a.m. or so. Marian will be able to tell you if the teens on your list are in attendance that day and any other information that you may need. It is generally best to find the teens while they are eating breakfast: Introduce yourself and explain that you are here to do their first interview. Teens usually know about the interviews, so it makes your task easier. Remind the teen that they will receive $5 for the interview after it is finished. Interviews are conducted in the room next to the breakfast room.

On your first few trips, you will be observing another 490 student conducting an interview. By the time you are on your own, you will have the protocol down. Make sure to take the following items:

1. **Drivers license for I.D.**
2. **A full interview, and at least two scantron sheets**
3. **Response cards**
4. **Two pencils**
5. **A smile**

If you have been trying to contact a teen for awhile and she is never at school when you go, try to brainstorm a new approach or call your supervisor for ideas. If you're really stuck, talk to Marian or Mrs. Maki (a teacher at YPED). One of these women can usually provide you with more information about contacting the teen. But remember, both Marian and Mrs. Maki are very busy, and they're not always available to answer your questions. Here are some examples of ways in which Mrs. Maki and Marian can provide helpful information.

Example 1: Sometimes a teen has a difficult pregnancy and is not able to attend school during the last months of her pregnancy. Also, teens usually take 4-6 weeks off from school after the birth of their baby. Mrs. Maki takes homework to these teens and knows when they are usually at home and available.

Example 2: Sometimes teens transfer out of YPED and back to their home schools, either before or after the birth of their babies. Marian often knows what school the teen is now attending.

Example 3: Sometimes the teen is never at YPED or at her home address. She seems to have "disappeared." Marian often has an alternative address or phone number for the teen (or a relative of the teen or the teen's probation officer) that your supervisor did not know existed.

When a teen has not been coming to school, you need to call or make a home visit. On the phone you can say something like, "Hi. I'm _____ and I work with Marian Phillips at YPED. She suggested that I call and try to set up an interview. Will you be available at _____?" Just feel the conversation out and use your judgement. Set up the appointment and remind the teen that the interview will only take about 45 minutes. Whenever you contact the teen, express concern that they haven't been at school in awhile and encourage them to attend school soon. Don't be pushy, just concerned.

Always leave a message when you call the teen, with the number of Bianca's office, 353-6449. Tell the person taking the message that the teen can leave a message at this number with the best time to call back. Also, only leave your first name with the message. DO NOT UNDER ANY CIRCUMSTANCES GIVE YOUR HOME NUMBER TO THE TEEN. This is a necessary safety precaution.

If the teen does not have a telephone and you need to make a home visit to schedule the interview, use an approach similar to that described above. That is, identify yourself as someone who works with Marian Phillips at YPED and try to find a convenient time to conduct the interview. It is a good idea to take all of your supplies when you make this initial visit because the teen may indicate that she would like to have the interview right then; you don't want to miss the opportunity, as did the 490 in the sample journal entry (p. 13).

If the teen is not home, make sure to leave a written message with someone at the house or, if no one is home, tack the note on the door. A verbal message may never reach the teen.

Just be sure that when you make a home visit, you take a map of Lansing and allow at least two hours in case you get lost or need to do the interview right then. Home interviews usually take about 35-40 minutes.

Contacting Teens for T2 Interviews. T2 interviews must be done when the baby is one month old. Until the baby is born, we only have the baby's projected due date. Teens needing a T2 interview are put on your weekly assignment sheet even before the baby is born. This is so that project staff (including you) can monitor the **exact** birth date of the baby. Knowing the exact birth date helps us schedule the **T2** and **T3** interviews at the correct times. Be sure to include the exact birth date on T2 and T3 interview forms.

When you are assigned a T2 interview, begin contacting the teen to find out whether she has given birth. If she has not, contact her weekly until the birth occurs. Once you know the exact birth date you can plan on scheduling the T2 interview. (For difficult to reach teens, stay in touch with Marian and Mrs. Maki to find out if they know whether the teen has given birth.)

Teens take 4-6 weeks off from school when their babies are born, so you will not usually be able to conduct the interview at YPED; you will need to contact the teen at home, either by telephone or in-person (if she doesn't have a telephone).

The interview should be administered four weeks after the baby has been born. Often, the teens are very busy with their newborn and will not know a good time to schedule the interview. Suggest scheduling the interview during a time when someone other than the teen will be available to watch the baby (usually late afternoon or evening). If the teen needs to take care of the baby while the interview is proceeding, your interview will be longer than usual. In-between feeding times is also a good time to schedule an interview because the baby is often sleeping.

You may find this interview to take longer than the other two because of the constant care that is involved with a baby. This interview takes about 45-50 minutes.

Contacting Teens for T3 Interviews. T3 interviews are administered when the baby is six months old. The teen may still be enrolled in YPED, she may have re-enrolled at her home school, she may be attending adult education classes, or she may have dropped out of school. Ask your supervisor whether she has any information on the teen. Contacting Marian may also be useful because she usually stays in touch with the teens even after they have left the program and may know where they are currently living.

You will need to either call or make a home visit to set up the interview. Remind the teen that two interviewers will be involved: one interviewer will ask her questions, the other will test the baby. For this interview, you will contact another 490 who is trained to do the Bayley Developmental test. The two of you will have to coordinate a schedule for the best times to do interviews.

It is usually helpful if you tell the teen, "(The Bayley administrator) will also be coming and she will bring some toys to play with your baby while we do our interview." The baby needs to be 6 months old, but it is alright if the baby is between 5 1/2 to 6 1/2 months old. PLEASE TRY TO INTERVIEW THE BABY WITHIN THIS TIME FRAME BECAUSE THE DEVELOPMENTAL TEST WILL NOT BE AS VALID OTHERWISE.

When arriving to do the interview, it is important for both interviewers to express interest in the baby--be sure to ask the baby's name and find a positive, genuine comment to make about the baby. Also inquire about the mother--whether she is in school (again encourage her to attend if she isn't, without being pushy) and perhaps how the first six months of parenting are going.

If the teen is attending school, the best times for the interview will probably be after school ends for the day, about 4:00 p.m. The T3 interview takes about 35 minutes.

Problem Solving. The above information assumes that you have been able to locate the teen on your list and conduct an interview. What do you do when you can't find or contact a teen?

The teens are usually very cooperative with interviewers. However, you may be assigned a teen who has just been kicked out of her home, has a drug dealer boyfriend (who doesn't want strangers around the house), or lives a very transient lifestyle. Don't get discouraged! If you are having trouble contacting the teen by telephone, call every day for a week until they get your message. If you haven't been able to contact them by telephone because they are never home, stop by their house. If all else fails, you can have your supervisor send a letter or try and have YPED staff call the teen. If you've tried everything you can to find a teen, don't let the problem fade away. **TELL SOMEONE.** Let your supervisor know if you have made an attempt for one week and haven't had any luck.

First, problem-solve in your weekly class meeting with your supervisor and your fellow 490s. The time to voice frustration is at the weekly 490 meetings, not to the teen directly. Here is where you can brainstorm with other 490's to deal with the situation more effectively. Other 490's have been through the same experiences.

Second, call Marian. She probably has the most up to date information on the teens. She may give you names of friends and family that have contact with the teen or a different address than what you were initially given. Some teens are very hard to find and may require at least 3 or 4 phone calls or home visits.

Supplies

You need to review the questionnaires and procedures for each type of interview (T1, T2, and T3) well in advance of the actual interview. T1, T2, and T3 interviews include some identical questionnaires and some that are unique to that interview. Packets can be found on the table

outside of Room 446, Baker Hall. Notice that each packet has a fresh "Ways of Coping" sheet, to be filled out by you, as well as a new "Social Support Questionnaire" and a tracking form.

For example, let's suppose that you are going to a teen's house to do a T2 interview and you brought a T3 packet instead. You would be missing a questionnaire on birth and delivery, feelings the teen has about her mom (CRPBI-M-30), and feelings the teen has about her parenting skills (FEQ-teen). You wouldn't be prepared for the interview. Consequently, you would have to either reschedule the interview or call the teen later to get the information. And you probably don't want to reschedule the interview, because some teens are often difficult to find and you would be wasting a lot of your time.

The other reason why we ask that you check the packets carefully before going is because sometimes the secretaries who put them together are not familiar with the layout and accidentally put something in the wrong place. This doesn't happen often, but you would not want to be the unlucky person who had to compensate for it. It is your responsibility to complete the entire interview, even if measures in your particular packet are missing.

For each interview you need: the packet of questionnaires, a set of response cards, a few number 2 pencils, and at least two large scantron sheets. The T2 interview also needs a small scantron sheet. Response cards will be given to you.

Familiarize yourself with the response cards and the questions because you may be asked by the teen to explain the responses in a different way. You also need to know the "introductory" statements for each section well enough so that you can develop your own style and explanation of the questionnaire. It will be much easier to build rapport with the teen if you are not reading the instructions verbatim. When conducting the interview, you don't ever want to ask leading

questions or provide answers to the teen, but you may have to give examples for responses.

Arriving at the Interview

Dress casually when going to an interview. If you wear lots of jewelry or fancy clothes, this only draws attention to the differences between you and the teen. In addition to a casual style of dress, maintain a casual and accepting attitude. If the teen feels that you don't accept them for who they are, they may be very uncomfortable answering questions about such things as their self image or parenting style. As part of a research team, your job is to be as unbiased as possible, so don't let your feelings about a person's lifestyle affect your interview. Save the discussion for the weekly meetings.

Here are some special tips for conducting home interviews. . . Because you may not be familiar with the Lansing area, it is likely that you will get lost. Take the teen's, Marian's, and your supervisor's telephone numbers as well as a map of the area. Stopping at a gas station is only a good idea if it is daylight, especially in some of the areas that you will be travelling. Don't be late for an interview. Always allow yourself twice as much time as you think it will take to get to the house. Most teens will not wait for you if you are even a few minutes late, so don't be surprised if they leave. Just reschedule as soon as possible. Most 490's have said that they feel more comfortable taking another 490 with them to do interviews, especially if their appointment is at night. Taking another 490 is especially helpful as an aid to navigation. However, do not ever take a friend because that breaks the confidentiality agreement.

Always leave your purse in your car in an inconspicuous place and lock your car doors. Park as close to the house as possible, under a street light if you can. Take an umbrella or other objects (whistle) to ward off unwanted confrontations with dogs. IF YOU FEEL UNSAFE AT ANY

TIME BEFORE OR DURING THE INTERVIEW, YOU MAY LEAVE. Just quickly but considerately end the interview and leave the house. You may want to take someone from the project with you to the interview the next time you go; just say that they are your ride. In the history of this project we have never had a 490 physically harmed in any way. However, you are entering into unfamiliar circumstances so it is always wise to be prepared for anything.

Beginning the Interview

When you initially meet the teen:

1) Introduce yourself and try to ask her something about herself that is not related to the interview, "How many months pregnant are you? Have you picked out any names for the baby?" This helps to break the ice. It is important to build rapport with the teen so that she feels comfortable and will give us honest and complete answers to the questions. Also, our project cares very much about these teens and their lives, not just about the research questions. You are a project representative every time you meet with and interview a teen. (We'll discuss rapport in more detail in the next section of the manual.)

If you are at the teen's house, family members may also be present and they might use this initial period to ask you questions about yourself and what your purpose for coming is. Don't become defensive. They have the right to ask because you are in their house. Most families are courteous and willing to help you.

2) Tell the teen that you will be asking her some questions about herself and how she feels about things in her life. Emphasize that there are no right or wrong answers to any question. Because of the nature of the interview, the teen may look to you for validation after responding to a particular item. Some 490's have described it as the teen giving non-verbal cues, silently asking if what they said is okay. A positive tone of voice and facial expression will help to dissipate

any fears the teen may have. Remember, we don't want to reinforce the teen to respond to questions in a particular manner. If the teen looks at you questioningly, you can tell her "We just want to know your opinion about these things. There are no right or wrong answers."

3) Make sure the teen knows that she can stop you at any time if she doesn't understand something, has to go to the bathroom, or if she needs to take a break.

4) Make it clear that this interview is completely confidential. You will not share her answers with anyone (family, friends, school, etc.) without her permission. Remember that to maintain confidentiality, the interview has to be conducted in a quiet, private place. There is no confidentiality if a younger brother or mother is leaning over the teen's shoulder watching her complete the interview.

For example, one 490 found herself trying to conduct an interview while the entire family looked on. The teen's little brother would look over the shoulder of the teen and say, "I can't believe you said that. That wasn't true." It is not appropriate for any family members or friends to listen to the teen's responses; it is best to suggest to the teen that you go somewhere private, where you can sit down and concentrate without so many interruptions. It is even acceptable for you to offer to take the teen to McDonald's so that you can have some peace and quiet. As always, just feel out the situation. Never accuse the teen of having a noisy house; always reframe the situation so the teen doesn't feel that she or her family are the problem. You could say, "I'm having a lot of trouble concentrating. Could we go somewhere a little more private so that I can hear you more clearly?"

Another time, a 490 student and her Bayley partner went to a house to conduct a T3 interview and found themselves in the middle of a huge, family birthday party for a seven year old cousin. The interviewer apologized, saying that they wouldn't have come during such a special

occasion if they had known. The teen replied, "I didn't know about it either." Sometimes the teen is not aware of plans that their parents or guardians have made, so it is wise to ask before you go if they could check with their mom (for example) to see if 4:00 P.M. is an okay time to arrive. In this circumstance, the interviewers should have asked the teen if she wanted to do the interview or if she wanted them to reschedule. If the teen wanted to proceed with the interview it would have been necessary to find a quiet, private area of the house or to leave the house (perhaps go outside in the yard or go to a local fast food restaurant).

5) Try to sit on furniture that is made of wood because upholstered furniture may be unclean. The optimal place to conduct the interview is at the dining room table. You need a well-lit area with enough space so that you can lay out your response cards for the teen. A 490 went to a house that did not have a dining room table or a coffee table. Fortunately, she had taken a hard folder, so she wrote in her lap while the teen held the cards.

6) Explain to the teen that she will receive her money from Marian at the end of the interview: $5 for a T1, $10 for a T2, and $15 for a T3 interview. When the interview is over, remind the teen that she needs to telephone Marian at YPED and set up an appointment to get her money. You could say something like, "You can pick up your money at YPED in Marian's office. I'm sure Marian would love to see you and your baby. She sometimes asks me how you are doing." You will give each teen that you interview a "check" that they will present to Marian. This way Marian knows whether or not the interview has been completed and how much to pay the teen. NEVER AGREE TO GIVE THE TEEN MONEY FROM YOUR OWN POCKET OR TO PICK UP THE MONEY FROM MARIAN AND DELIVER IT TO THE TEEN.

7) If you are administering a T1 interview, tell the teen that her mother will also be contacted for an interview. Perhaps the teen can tell you the best time to contact the mother. Also, restate that the information the teen and parent provide will not be shared or revealed to the other person.

If the teen is due for a T3 in a few months, remind them that someone will be coming to see them when their baby is six months old to do the last interview.

Interviewing Techniques

Interviewing is generally much more complex than we realize. It is different than day-to-day conversation that you might overhear between any two people. Also, any socio-economic and racial differences between you and the YPED interviewees may present some initial obstructions toward rapport-building. In addition, the very personal nature of the interviewing of these YPED teens requires some preparation.

Rapport. It is important that we present ourselves in a friendly, straight-forward manner. Because many of the YPED participants have not had as much educational opportunity as we have, our choice of vocabulary words should be plain and easy to understand. Hyper-intellectualism may not only be confusing to the teen, but such an approach might also alienate her and cause her to say very little during the interview. You don't want the teen to perceive you as haughty, judgmental, or trying too hard to impress her.

Within the first few seconds of their meeting you, the teen will usually sense whether you are interested, kind, sincere, and serious/mature. If you come across possessing these qualities, you will be providing an atmosphere in which the teen feels comfortable telling you about herself and her honest opinions.

There are no rigid formulas to follow with regard to rapport building. Most people like to say a few ice breaking things (e.g. comments about the weather) before they begin the formal interview. Even as the interview goes on, be sensitive to the teen's emotional and physical energy level. If you sense that the teen is getting exhausted and not really paying attention to the questions, take a break. Talk for a little while and then go back to the interview. We really care about the honest opinions of each teen--the information is only important and valid if each teen feels comfortable enough to answer the questions honestly.

Empathy. The teens that you are likely to interview have lived through and continue to live with painful experiences. Sometimes, if teens feel that they can trust you, they will tell you about particular life experiences they have had or are currently having. Empathic comments said at the right moment can deepen rapport rapidly and help the teen feel more comfortable with you. Empathy requires that you, the interviewer, make an effort to understand the teen's feelings. It doesn't mean that you have to feel what the teen feels. It doesn't mean that you sympathize with the teen. [When you say, "I'm sorry that your sister was put in foster care" you are sympathizing, not empathizing.] It also doesn't mean that you tell the teen that you know how they feel ["I know how you feel. The same thing happened to me."] Empathy means that you try to understand what it must be like to be in the teen's situation.

Not all people respond positively to empathy, however. Some researchers have pointed out that empathy can have a negative effect on some very guarded individuals who may have a long history of mistrusting others. We all intuitively feel people out in terms of their level of comfort with empathy. Some people prefer a greater emotional distance from others, especially in the beginning of a conversation or

relationship. In whatever case, a gushing or phony empathy is likely to turn anyone off. This goes back to needing to be genuine and relaxed.

Listening. The most important aspects of an interview, especially a more unstructured one, can be summed up as: active listening. Active listening is listening in such a way that actively conveys you are understanding and also encourages the person to continue. There are three important ways to convey that you are listening and also that you empathize: time, silence, and your comments.

First, you indicate that the teen is important and that you care by taking the time to listen to what she wants to tell you. You don't rush her and indicate that she's wasting your time or that you have more important things to do than sit and listen to what she wants to tell you. Second, you listen silently, without interrupting. Think about all the nonverbal cues that you can give to someone to let them know you are listening and caring. You can make eye contact with them, you can nod your head, you can say "um-hum" sometimes. Your posture can also indicate that you're listening--when we're really listening to someone intently, we often lean forward a little. Many of these things we do intuitively when we are listening to someone speak.

Your comments also let the teen know you are listening. Paraphrasing, reflective, and clarifying statements are other strategies we use to let our speakers know we are following and attentive. Paraphrasing is a simple rewording of what the person has just said, as in the example below.

YPED Teen: "Yes, I guess I get stressed out when Yolanda cries and cries and cries. I give her the bottle and she cries. I change her and the girl still cries! Man, that gets me going".

MSU 490: "Sounds like you get very frustrated because you try everything in the book to soothe her".

A reflective comment lets a teen know that you know how she's feeling. So, if a teen tells you a story about how her sister was put in foster care, you might say "It sounds like you miss her" or "It sounds like you're worried about whether you'll be able to stay in contact with her."

Finally, if you're not certain you understand something the teen said, ask for clarification. For example, you might say "Let me see if I got this straight. First you moved back to Chicago, and then you found out you got pregnant?"

Often, the teen may appear uncomfortable with the personal nature of some of the questions. Asking "close-ended" questions as opposed to "open-ended" ones will only increase the teen's discomfort. Close-ended questions are questions which usually require only one word answers. For example:

"How old are you?"

"When did you move to Lansing?"

On the other side of the continuum are open-ended questions, some in the form of gentle commands.

"What was it like to hear you were pregnant?"

"Tell me, what was happening in your life at that time?"

Interviewees respond tersely for a number of reasons: they may be anxious, they may not want to discuss details with you, etc. But if all of your questions are close-ended, you are facilitating this pattern. Therefore, the most useful strategy to consider is to increase the number of open-ended questions.

Culture and Communication Styles. The following is an excerpt from a paper written by Bianca Guzmán and Valerie Roberts on how culture impacts communication styles. The teens in our project come from many different ethnic and cultural backgrounds.

When talking about language, people usually think of verbal communication only. Another component of language is non-verbal communication. Non-verbal communication goes beyond the content of what is said and refers to messages that are conveyed through body language. In the United States, EuroAmericans tend to place more emphasis on spoken language rather than on non-verbal language. However, for people of color, non-verbal communication is equally important. Studies have shown, for instance that members of different ethnic groups and women are more cognizant of non-verbal cues. This finding is based on the notion that historically oppressed groups look to non-verbal communication as a more accurate reflection of the meaning behind the spoken language. This can be seen in instances when EuroAmericans and other ethnic groups are interacting: the person of color is more likely to pick up on social cues. For example, a non-verbal social cue indicating that you're running late, such as holding the door knob, is more likely to be picked up by a person of color. In addition, the messages conveyed through non-verbal communication are culturally specific and the assumptions we make about the nonverbal communication we receive are often subjective and deeply rooted in our own cultural beliefs. Three components of nonverbal communication that will be discussed in some detail are: proxemics, kinesis, and paralanguage.

Proxemics: Refers to the perception and use of personal space. Different cultures have different standards in the use of personal space. Without an understanding of the cultural differences of the participants, it is easy to misunderstand or misinterpret the physical distance people accord in different situations. For example, Latin Americans and people of African descent converse at a closer distance than do Northwest Europeans. Since people tend to judge others based on their own cultural values, it is not unlikely that they would view someone who is in closer proximity than they're accustomed to or

comfortable with as inappropriately intimate, pushy, or aggressive. Conversely, if someone is communicating with another person at a greater distance than is normal for them, it is likely that the difference in proximity would be attributed to superiority or haughtiness by the other person.

Factors of personal space also have implications for where a person may stand or sit. People who are a part of a culture that does not require a great amount of physical distance may tend to sit closer to other people, whereas those who require a lot of personal space may be further removed. It is important to be aware of these types of cultural differences when making assumptions about nonverbal communication of the [research] participants, or interviewers will run the risk of misinterpretations.

Kinesis: Individuals tend to make inferences based on facial expressions. For example, we may infer that someone looks happy, sad, nice, evil and/or angry just by their facial expression. Often times these assumptions are incorrect. Researchers point out, for instance, that in Asian culture restraint of emotion, such as anger, is a sign of maturity, or a smile may not necessarily convey happiness, but embarrassment.

Negative traits are often ascribed to the avoidance of eye contact. For example, how often have we said or heard something similar to, "You're not looking at me so you must be lying or trying to hide something" or even challenged someone with "look at me in the eye and tell me . . ." Eye contact is viewed very differently in many cultures. In Asian culture it would be extremely disrespectful for a participant to look an interviewer in the eye to answer research questions. In Latin culture, looking away or using peripheral vision signifies respect for the individual. One must be very careful not to label these types of behaviors on the part of the participant as

deficits, but merely as differences in cultures. Another cultural difference is the amount of eye contact given by different groups when someone is speaking or listening. Studies have shown, for instance, that EuroAmericans make eye contact 80% of the time when they are listening to someone else speak and only 50% of the time when they are speaking. Conversely, African Americans make more eye contact when speaking than when listening to others speak.

Paralanguage: In the United States, silence during conversations is uncomfortable. For many people, the first instinct is to fill the silence with some sort of verbalization when it occurs. In some cultures, like Russian, French, or Asian, silence denotes agreement or respect. Interviewers need to be cognizant of the fact that different cultures view silence as a positive interactional tool. For example, a research participant who pauses for long periods when an interviewer is orally administering a measure may be perceived by the interviewer as uninterested or confused. In this instance, the interviewer is using his/her own cultural expectations about paralanguage to assess the motives of the participant.

It is also important for interviewers to be sensitive to cultural differences in voice volume. This means that different cultures assign meaning to different types of voice inflections. In the United States, we tend to equate loud speech with anger and hostility and ascribe traits such as shy or withdrawn to people who speak softly. Sometimes we even reinforce racial or ethnic stereotypes based on voice volume. For example, it is not uncommon to hear African Americans being depicted as loud, rambunctious, or overly emotional. Studies on cultural differences have found, however, that compared to EuroAmericans, African Americans have a more emotional, animated, and affective communication style.

Directness or frankness of conversation is often culturally specific. American culture demands that people "get to the point" or "cut to the chase," whereas other cultures think that a more indirect approach is more appropriate. In fact, being too direct or frank is even offensive to some cultural groups, such as Native Americans and some groups of Latin descent. This point is important when conducting interviews because research participants may feel isolated or unimportant [because they believe the interviewer has interrupted their comments].

Completing Forms and Turning Them in to Your Supervisor

All of the teen interview forms must be completed neatly and completely before you turn them in. Do not turn in partially completed interviews. If you forget to conduct part of the interview, politely call and tell the teen about your mistake. You may ask one or two questions over the telephone, more extensive problems require an in-person interview. The teen may be annoyed, but at least the interview is complete.

On every single sheet of paper or scantron that you turn in, the following items must be included:

1. Teen's name

2. Date of the interview

3. Your name

4. What interview it is--i.e. T1, T2, or T3

5. Teen I.D. number--If T1 just leave blank.

If T2 or T3, you will have the I.D.number: bubble it in on the scantron form

A sample interview is attached to the back of this manual to give examples of proper coding and recording. NEVER USE STAPLES on any of the materials that you turn in for data collection. Please use paper

clips. Also, do not make stray marks on the scantron sheet. The computer cannot accurately read scantrons with holes or writing over the code bar.

SOME FREQUENTLY ASKED QUESTIONS ABOUT THE INTERVIEWS

You will find this section most helpful if you have a T1, T2, and T3 interview packet in front of you as you read.

Teen Interviewing Style Problems

Sometimes the teen will respond to the interview questions in a very systematic way. For example, you may ask them questions and receive the answer "2" for a whole string of questions that may even contradict each other. This occurs for many reasons. The teen may be more interested in the money than in the interview, she may want to complete the interview quickly because she is tired, or she may not understand what you have asked her.

Our project doesn't want questionnaires filled with false or unthoughtful answers. If you feel the teen is not giving good answers, you might stop at this point and repeat the response choices to insure that she understands the questions. Another suggestion is to ask if she is uncomfortable and would like to stretch or use the bathroom. You could also explain to the teen the importance of her opinions to our project and how they may help teens who enroll in YPED in the future. It is not uncommon for these suggestions to "wake up" the teen and help them to focus on the task at hand. The main objective is to get data that is truthful, not to finish quickly.

Tracking Form Problems

The Tracking Form is administered at T1, T2, and T3 and is actually very straightforward. The problem is that many interviewers do not know how to record a response when the teen says, "I don't know." For example, let's say that you asked the teen where her father lived and she wasn't sure. You would then record "teen not sure" or "not

applicable" in the space provided. Never leave any section blank or put a slash through the question, because those who are processing the data will not understand what you meant.

The tracking form asks who is the teen's "Mother\Female Guardian." The teen will give you the name of someone, but you will need to clarify whether the person is their mother or their female guardian, by circling the correct option. If the teen says "adoptive parent," then add this information off to the side.

In addition, you will want to ask the teen when is the best time to contact the mother/female guardian for the mother interview. This is a good time to repeat the confidentiality statement to reassure the teen that you will not tell their mother anything that they tell you. Add the scheduling information at the end of the tracking form and make note of it in your journal, in case someone else is assigned the mother interview.

"Ways of Coping" Questionnaire Problems

This questionnaire begins by asking the teen to tell you about a recent stressful event that happened related to her pregnancy (T1) or being a new mom (T2, T3). You need to try and get as much detailed information as you can, which is why building rapport is so important. Many teens have difficulty thinking of a problem. As explained earlier, try and ask more open-ended questions to prompt a reply from the teen. For instance, you might say "It's hard being pregnant. Sometimes problems arise. You might have health problems or you might have arguments with your parents or your boyfriend. Something like this might have been stressful for you. Can you think of anything?"

If you still can't get an answer, try to offer suggestions, such as, "Maybe you got in a fight with the father of the baby, or you fell down the stairs and were worried, or you can't get any sleep because the

baby is up every two hours." Usually the teen will be able to think of something.

If the teen says something like, "My mom and I fought," try to get more complete information. You might start by asking a general, open-ended question such as, "Can you tell me more about that?" or "Can you tell me what happened?" If the teen shrugs or says, "We just fought," then start asking more direct questions such as "What was the fight about?" "How did you handle it?" or "What did you do to try and resolve the situation?" In other words, try and get a complete picture of what occurred.

After you have a complete picture of the situation, then say something such as, "Now I am going to ask you some questions about things that other people do when they are in stressful situations like the one that you described. I want you to tell me whether or not you do each of these things. Just keep in mind the situation that you told me about while you answer the next questions."

The last question on "Ways of Coping" (#137) states: "Are there any other ways you cope that I have not yet mentioned?" At first, this usually elicits a response of "no." Try to prompt the teen a little more. You could say, "Sometimes people have a special trick that they use to cope with a problem. What is your special trick?" If this open-ended question doesn't elicit an answer, then follow-up with more specific prompts: "Maybe you called your friend and talked for hours on the phone; maybe you kicked the wall. Anything?" Of course, you need to recognize that the teen might really not have an answer for this question. This item needs to have a written response as well as a numerical coding on the scantron sheet. Directions for coding are found on the bottom of the fill-in sheet.

"Social Support" Questionnaire Problems

The "Social Support" questionnaire (also administered at T1, T2, and T3) looks more difficult than it really is. You start with the last page first, the one with all of the numbers, and have the teen tell you the names of people that help them in some way. Then, you can either work on the "who knows who" section or the question section. It is better if you read the questions to the teen because they may not understand some of the words if they read it on their own. In addition, they can sometimes get confused about certain items such as whether or not their boyfriend is someone who is single with kids or not yet with kids. By discussing with the teen their support group members and their various situations, you can help the teen decide on the best answer for her.

Problems Specific to the T1 Interview

Because this is the teen's first interview, this interview involves much more patience on the part of the interviewer. You will need to explain and clarify many questions simply because the teen is not familiar with the procedure and the phrasing of the questions. Other 490's have found that some teens do not know the meaning of words such as: necessities, gave vs. loaned, "gave feedback," or discipline vs. punishment.

1. On the Demographics Form, make sure to clarify what prenatal care is--prenatal care is going to a doctor for regular checkups and care about the pregnancy. Some teens may respond that they have never gone to prenatal care because they don't understand what prenatal care means.

Items 9 and 10 on the Demographics Form inquire about the occupations of the teen's father or mother (or guardians). Many teens respond with comments such as "My mother works at Meijer." Meijer is a store, not an occupation. An occupation is the activity that the person is involved with on the job site. The interviewer has to prompt to get

the correct answer. You might say "What does your Mom do at Meijer?" or "Is she a cashier?" If the teen can't come up with a job title, get the teen to describe the activities of the job.

Item 13 on the Demographics Form ("What are your hobbies or interests?") does not often get a response without some prompting. You could suggest some things like, talking on the phone to their friends, babysitting, cooking, shopping, or playing basketball.

2. The entire " Knowledge of Infant Development" questionnaire is difficult. Be sure to have ready-made examples of what depth perception is, what "to reason logically" means, and question 47: An infant of twelve months can remember toys she (he) has watched being hidden. You could say something like,"If you took _____'s favorite toy and put it in the toy box while he (she) was looking, would they know where it was?"

3. The question on the "Hassles" measure that asks about sex is also a misunderstood question. What we are interested in is not whether sex itself is a hassle, but are the circumstances leading up to sex a hassle. Do you and your boyfriend like to have sex the same amount? Do you agree on when to have sex? It is always good to clarify that question, no matter how embarrassing it may be for the teen.

4. The question that gives the most teens difficulty is #151 on "ISSB": (How often in the last four weeks has someone) "Expressed esteem or respect for a competency or personal quality of yours." If the teen does not understand the question, you might say the following: "This means how often someone has complimented you on some part of your personality. For example, someone might have said that you were such a great friend, or a good listener, etc."

5. How the teen answers the "PSI-Mom" is crucial if the teen is currently living with someone other than their birth mother. Frequently, teens have said, "I don't ever see her" or "I live with my

grandma." The teen should answer this questionnaire thinking about the person who has been in the "mother role" with her. In most cases, this person is the woman who the teen indicated was their Mom/Female guardian on the Tracking form.

Problems Specific to the T2 Interview

During the T2 interview, the teen usually remembers a little about the basic interview procedure, but because much of the interview is different, they may still ask a lot of questions.

1. "Knowledge of Infant Development" is still difficult.

2. On CRPBI-M-30, questions 239 and 253 sometimes need further explanation.

3. FEQ-teen usually needs further qualification because most of the teens do not have any idea how they will be as parents. It is sometimes helpful to say that they can think about how they feel when their cousin misbehaves, saying, "I'll never let my kid get away with that." Teens also sometimes misunderstand what consistent (#14), independent (#31), and "reflections of myself"(#20) mean.

4. The "Labor and Delivery" questionnaire is straight forward, though you may have to clarify that epidurals are a type of pain killer given during labor that numb from the waist down.

Problems Specific to the T3 Interview

By this time, the teen is familiar with the procedure and is comfortable with the questions and the way that they are asked. You will find that the teens are more at ease with the "Knowledge of Infant Development" than they were previously, though you still may have to clarify a little.

You may find that there are other questions not listed here that come up frequently, which is why it is important that you look over each interview packet very carefully before conducting an interview. If you

find questions that are frequently asked, mention it to your supervisor so that we may update this manual to aid future 490's.

PREPARING FOR AND CONDUCTING

A MOTHER/FEMALE GUARDIAN INTERVIEW

Contacting the Mother/Female Guardian

You will be given the name of the mother or female guardian when you are assigned a T1 interview. Don't be surprised if the teen and the mom do not live at the same address. Contact this person by phone or in person to set up a time to do this short, 15-minute interview. You need to make sure that you fill out the forms completely every time. Once again, do not ever staple anything. Please use a paper clip. On the scantron and the "Family Disruptions" component, you need the following information:

1. **Teen's name**
2. **Mom's name**
3. **Your name**
4. **Date of the interview**
5. **Teen I.D. number--Change the 4th # to a "2" to indicate that it is a mother interview, and bubble it in on the scantron. If you don't have the #, just write 000**

Because you will be recording responses on the small scantron sheet, make sure to put this I.D. information in the space next to where a signature would go. An example of this is attached to the back of this manual.

In order to contact the teen's mother or female guardian, you need to call her or go to her house if there is no phone. Be prepared to do the interview right then because the interview only takes 15-20 minutes.

This interview consists of the FEQ and the Rosenberg Self Esteem measures (the teen's also complete these questionnaires) in addition to the Family Disruptions Questionnaire. Note that the Rosenberg Self Esteem is numbered differently than the teen form so that it will better follow the FEQ. All of these measures are found on the table outside of Room 446 Baker Hall.

Problem solving. If you have been trying to get in touch with a mother/female guardian and they are not around, call Marian and see if the mother has a job where you could contact her. You could also contact the teen and ask her when the best time is to reach her mother/female guardian.

Recently, a 490 student was trying to contact a mom and the husband would always answer the phone. Sometimes the interviewer thought he sounded drunk or high, and she questioned whether the wife ever got the message to call the interviewer back. Finally, after weeks of trying, the interviewer called and the wife answered. She agreed to do the interview then, but she whispered the entire time, making it hard for the interviewer to hear.

Another 490 went to a house where she knew the mother was home. The 490 had just been told by a teen at YPED that her mother was home and, also, the 490 saw a car in the front driveway. The 490 student knocked on the door several times, but there was no answer. She knocked about twenty times before the mother finally answered the door. Obviously persistence is important whenever you do an interview.

Beginning the Interview

Some 490's wonder "What benefit does the mother/female guardian get from being interviewed?" Students sometimes wonder if the interview is a highly one-sided relationship in which we are doing the "extracting," and the woman being interviewed is doing the "giving." This attitude may show (e.g. the interviewer with this attitude may be

overly apologetic and in a hurry to finish) and may make the mother/female guardian quite uncomfortable. The truth is that an empathic interview can be a good experience for the mother/female guardian. Being heard and being understood can provide tremendous relief and a sense that somebody cares.

Also, review the "Beginning the Interview" section earlier in the manual that was written for the teens. Many of the same principles apply to beginning the interview with the mother/female guardian.

Interviewing Techniques

The interviews you'll be doing with the mothers of the YPED teens are fairly structured. The Family Disruptions Questionnaire asks about the times during which mother and daughter were separated and WHY. It's the most difficult part of the interview because it is less structured.

Some of these mothers are quite reluctant to talk about these separations. They may assume that you are asking these questions in order to inform Social Services. You need to be perfectly clear that this interview is confidential and private. Sometimes the mother will not understand what confidential means, so you will need to explain this if there is any hesitation in her voice. The standard definition of confidentiality states that everything that is discussed remains between you and the interviewee.

If you find that the mother/female guardian is reluctant to talk about family separations, remember (from the discussion earlier in this manual) the importance of using open-ended vs. close-ended questions. To reiterate, close-ended questions are questions which usually require only one word answers.

"Were you happy or sad about hearing the news?"

"Has your daughter ever lived with anybody besides you?"

Open-ended questions might be:

"Can you describe what events led to your daughter moving out of your home?"

"Can you tell me more about that?"

In addition, you may want to consider modeling some of the kinds of responses that are possible. For instance, if a mother being interviewed denies that she has ever been separated from her daughter, provide her with a range of possibilities:

"What about during times of illness, were you ever separated then? Has your daughter ever vacationed at a relative's house for a long period of time?" or "Most children are separated from their mothers during times of crisis in the family. Did that ever happen in your family?"

A 490 student asked a mother if she had ever been separated from her daughter and the mother answered "No." The 490 then probed by asking, "Not even when she was a baby?" and the mom replied, "Oh, once when my boyfriend was beating my daughter so bad that she had to go to the hospital. And also when my daughter ran away." This information would have never been obtained if the 490 had taken the mother's first response without further probing.

Below are samples of interview segments between an MSU research assistant and a YPED mother. Read them and think about the relative success this interviewer had at providing a kind of atmosphere in which the mother could disclose information.

Vignette 1

(1) *Interviewer*: Now, I'm going to ask you some questions about if you've ever been separated from your daughter and what were some of the reasons for these separations.

(2) *Mother*: Yeah?

(3) *Interviewer*: OK . . . have you ever been separated from your daughter at any time?

(4) *Mother*: No.

(5) *Interviewer*: Not ever?

(6) *Mother*: Not that I can remember.

What's wrong with this approach to interviewing? First, the interviewer began her line of questioning with an introduction addressing *separation* (Line 1). Sometimes it may be less threatening to open with a more positive statement such as:

"I'd like to know about the times when your daughter was being taken care of by other people."

Or, the interviewer could have begun the interview with a more general, accepting statement:

"Most children are separated from their parents for periods of time, like during summers or vacations or when the family is in some kind of crisis."

Then if information is not readily forthcoming the interviewer might have said:

"Can you remember any times like this when your daughter lived outside your home?"

Or better yet:

"When was the first time you and your daughter lived apart?"

This assumes that they were separated on at least one occasion and sets up the expectation that you intend to inquire about all of the separations.

It's important that the interviewer provide a safe, accepting environment, so that the mother feels comfortable discussing private, family matters. The way your questions are worded is very important. Researchers point out that beginning a question with the word "Why" can feel very threatening to some people. "Why" can sound *judgmental*, and it may inadvertently imply that there is a *single right answer*. The example below illustrates this.

"Why did your daughter get taken from your home?"

A more gentle, nonjudgmental probe is:

"What were some things going on when your daughter moved out?"

Vignette 2

(1) *Interviewer*: "When was the first time your daughter lived with someone other than you?"

(2) *Mother*: When she was 3, she lived with my mother.

(3) *Interviewer*: For how long?

(4) *Mother*: I don't know, about 6 months, I guess. [turns head away, lights a cigarette]

(5) *Interviewer*: Ahh . . . OK . . . Umm, was there a problem at home?

(6) *Mother*: [promptly] No, no problems at home.

(7) *Interviewer*: Was it some kind of illness or something like that?

(8) *Mother*: No, nobody was sick. [laughs]

(9) *Interviewer*: [eagerly] But you said she was gone for about 6 months, right?

(10) *Mother*: That's right.

What is happening in this scenario?

Here, asking an open-ended question (Line 5) might have produced more details.

"What was going on at that time?" or

"What were some things going on that caused her to move?"

Also, note on line 8 that the mother denied sickness being the cause of the separation, but she laughed, suggesting that something about that question may have made her anxious. The interviewer, sensing this, jumps in for something she can hold on to "But you said . . ." Here the interviewer may have learned more about what was on the mother's mind if she had remained silent just a few seconds longer. Silence serves as an invitation to hear more. It's like saying, "Yes, please go on. I'm listening."

The mother denied that anybody was sick, but the previous question was a two-part question: "Was anybody sick OR something like that?" The mother did not deny the "something like that." Avoid asking more than one question at a time. Try not to "stack" your questions or, when you do get a response, you won't know what question the mother was answering. Remember, it's generally more useful to begin the interview with a general, open-ended question and then use specific questions to find out the details of the family separation.

When stories get very detailed or confusing, it's appropriate to summarize what you think you know. "So, you're saying that right after your daughter's third birthday is when you went into the hospital. Your daughter lived with her step-father for 5 months, right?" As mentioned earlier, summary statements convey that you're listening carefully and that you care about getting the details right. They also give a chance for the mother/female guardian to clarify any misunderstandings and/or continue.

SOME CLOSING THOUGHTS

In the course of interviewing, you may find that the teens and their mothers are coming from very difficult lives. You can talk with the teen and her mom concerning these issues when <u>they</u> volunteer the information. These issues may be very painful, and the teen or her mother may feel comfortable talking to you because they sense that you are an objective sounding board. For example, a 490 student was interviewing a teen who had just been kicked out of her house. Because of her discomfort and inability to know how to handle the situation, the interviewer did not ask further questions. The 490 was not at fault, she was just unprepared as to the best way to address this issue. Be prepared for the possibility of teen's and their mothers telling you important information about their lives.

If you find that after a semester of interviewing you are ready to tackle more responsibility, let your supervisor know. There are opportunities for you to help with data collection and processing, conducting the Bayley Developmental Inventory on the six month old children, as well as training incoming 490's to interview. You are welcome to make suggestions toward improving this project. This experience can be what you make it. It is up to you.

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