

AN ABSTRACT OF THE THESIS OF

Martha Anne Kitzrow for the degree of Doctor of Philosophy  
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Title: A Comparison of Depression, Stress and Self-Image  
Between Younger and Older Adolescent Mothers.

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Adolescent pregnancy is a major social problem which results in negative psychological, medical, developmental, economic and educational consequences for both mother and child. A review of the literature examined psychological and sociocultural factors and negative consequences associated with adolescent pregnancy. There has been little research on age specific differences between adolescent mothers. The purpose of this study was to determine whether significant differences in depression ( $H_{01}$ ), self-image ( $H_{02}$ ) and parenting stress ( $H_{03}$ ) existed between younger and older adolescent mothers. Thirty three adolescent mothers between the ages of 15 and 21 participated in the study. An Analysis of Variance was used to determine whether significant differences existed and correlation coefficients were also calculated.

Significant differences in depression, self-image and parenting stress were found and all three hypotheses were rejected. Mid-adolescent mothers were significantly less

depressed than mothers in the other age groups. Younger mothers felt less competent and less able to cope than older mothers. They experienced parenting as more stressful and were less attached to their children. Younger mothers also reported the lowest levels of emotional health and were most at risk for developing psychological problems. In contrast, older mothers were more competent but felt more tied down, isolated and dissatisfied with their social relationships than younger mothers. Depression and stress were correlated with isolation, poor health and poor family relationships. The results of this study point to the need to screen adolescent mothers for emotional and psychological problems, especially depression and stress, and to provide appropriate counseling services to address these needs. Furthermore, since the needs of adolescent mothers vary according to their age and stage of development, programs that serve adolescent mothers should be tailored to meet the specific developmental needs of each age group.

A Comparison of Depression, Stress and Self-Image  
Between Younger and Older Adolescent Mothers

by

Martha Anne Kitzrow

A THESIS

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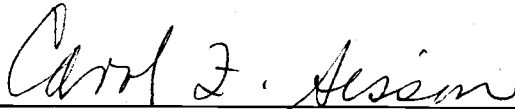
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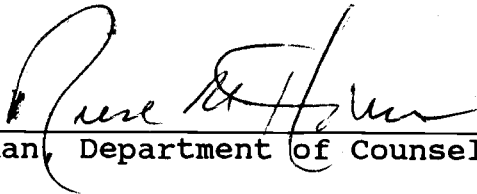
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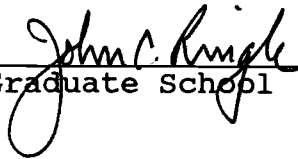
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## TABLE OF CONTENTS

	<u>PAGE</u>
CHAPTER I. INTRODUCTION	1
Description of the Problem	1
Rationale for the Study	6
Purpose of the Study	8
Hypotheses	8
Definition of Terms	9
Limitations of the Study	11
Summary	13
CHAPTER II. REVIEW OF THE LITERATURE	14
Psychological Factors Related to Adolescent Pregnancy and Childbearing	14
Parental and Family Relationships	14
Personality Traits	19
Depression	22
Self-Esteem and Self-Image	27
Stress	30
Sociocultural Factors Related to Adolescent Pregnancy and Childbearing	32
Academic Performance and Aspirations	32
Dating Patterns	33
Contraceptive Knowledge and Use	34
The Negative Consequences of Adolescent Pregnancy and Childbearing	37
Medical Consequences	37
Cognitive, Developmental, and Behavioral Consequences	39
Problems in Parenting and Attachment	41
Parenting Stress and the Potential for Abuse	46
Economic and Educational Consequences	50
Summary	54
CHAPTER III. RESEARCH DESIGN AND PROCEDURES	55
Sample	55
Subject Selection	56
Assessment Instruments	56
The Reynolds Adolescent Depression Scale	57
The Offer Self-Image Questionnaire	59
The Parenting Stress Index	62
Hypotheses	67
Statistical Analyses	67
Summary	70

	<u>PAGE</u>
CHAPTER IV. PRESENTATION AND ANALYSIS OF THE DATA	71
Statistical Analysis Ho <sub>1</sub>	71
Statistical Analysis Ho <sub>2</sub>	74
Statistical Analysis Ho <sub>3</sub>	81
Correlations	88
Summary	93
CHAPTER V. SYNOPSIS, CONCLUSIONS AND RECOMMENDATIONS	96
Synopsis	96
Major Conclusions and Recommendations	97
Adolescent Mothers More Depressed	97
Mid-Adolescent Mothers Least Depressed	98
Younger Mothers Most at Risk for Psychological Problems	99
Younger Mothers Least Able to Cope	100
Self-Image Linked to Poor Family Relationships	100
Negative Body and Self-Image	102
Older Mothers Most Isolated	103
Younger Mothers More Stressed, Less Competent	105
Younger Mothers Less Attached	107
Additional Recommendations for Research	107
Summary	109
REFERENCES	112

## LIST OF TABLES

<u>Table</u>	<u>PAGE</u>
1. PSI Test-Retest Reliability Coefficients	65
2. Distribution of Subjects, Age by 2 Analysis	68
3. Distribution of Subjects, Age by 3 Analysis	68
4. Analysis of Variance Layout	68
5. RADS Summary of ANOVA Results	72
5. OSIQ Summary of ANOVA Results	74
7. PSI Summary of ANOVA Results	81
8. RADS/OSIQ Correlations	88
9. RADS/PSI Correlations	89
10. OSIQ/PSI Correlations.	89



# A Comparison of Depression, Stress and Self-Image Between Younger and Older Adolescent Mothers

## CHAPTER I. INTRODUCTION

### Description of the Problem

In recent years, the United States has gradually become aware of a crisis that is effecting large numbers of our adolescent population; that crisis is adolescent pregnancy and childbearing. During the next year more than 1 million American teenagers between the ages of 15 and 19 will become pregnant (GAP, 1986; Dryfoos, 1982). Although approximately 40% of these pregnancies will be terminated by either spontaneous or induced abortions (Hayes, 1987), nevertheless nearly half a million babies will be born to teenage mothers this year. Approximately 30% of all abortions currently performed in the United States involve teenagers (Hayes, 1987).

In order to gain some perspective on what these figures mean, it may be useful to compare the U. S. pregnancy rate for adolescents to the pregnancy rate in other developed countries whose level of cultural and technological sophistication is similar to our own. In the United States, the pregnancy rate for white teenagers is 96 per 1,000; for nonwhite teenagers the rate is estimated to be much higher (Hayes, 1987). This compares to a pregnancy rate of 44 (per 1,000) in Canada, 45 in Britain, 35 in

Sweden and 14 in the Netherlands (Alan Guttmacher Institute, 1985). Thus, the United States, one of the most technologically, scientifically and medically advanced countries in the world, has the dubious distinction of claiming one of the highest rates for teenage pregnancy, abortion (Jones et al., 1985) and child-bearing among developed nations.

The overall pregnancy and birth rate for teenagers has actually declined somewhat in the last 20 years due in part to a declining adolescent population, increased contraceptive use, and an increased rate of abortion (Hayes, 1987). According to Dryfoos (1982), between 1973 and 1978, adolescent births declined 11% while abortions increased by 81%. However, the absolute numbers do not adequately reflect the complexity or changing demographics of adolescent pregnancy and childbearing.

Today, a typical adolescent mother is more likely to be white, unmarried, middle class and younger than ever before. (GAP, 1986). The greatest increase in birth rates has been to white unmarried teenagers between the ages of 15 and 17 (Dryfoos, 1982). It is estimated that nearly two thirds of all white adolescent mothers and nearly all (97%) black adolescent mothers are unmarried when they become pregnant (Furstenberg et al., 1989). At the time of delivery, more than half of all births occur to single adolescent mothers (Hayes, 1987).

By comparison, in 1970 only about 30% of all births to adolescents occurred out of wedlock and in 1960 a mere 15% of adolescent births occurred outside of marriage (National Research Council, 1987). Currently less than 50% of adolescent mothers ever marry the father of their child and the divorce rate for those that do is 3 times higher than the divorce rate for women who marry in their twenties (Phipps & Yonas, 1980).

Single adolescent parents are also likely to live in poverty. According to the last census, female-headed households with children are "disproportionately poor"; forty one percent of all female-headed families had incomes at or below the poverty line. In female-headed households with children under the age of 3, more than two-thirds were poor and received some form of public assistance (Sweet & Bumpass, 1987).

Furthermore, the majority of adolescent pregnancies today are unplanned or "unintended" (Dryfoos, 1982). The younger the teenager, the more likely it is that the pregnancy was unintended (Hayes, 1987). During a typical 1 year period, 87% of pregnancies to girls 15-17 were unintended as were 65% of pregnancies to girls 18-19. Among girls ages 15 and under, virtually all the pregnancies were unplanned (Alan Guttmacher Institute, 1981).

In addition, a percentage of unmarried girls who have had one unintended pregnancy experience a repeat pregnancy

again within a 12-24 month period of time (Zelnik, 1980). Furstenberg (1976) reported that nearly 25% of a sample of 404 adolescent mothers became pregnant again within 12 months of the birth of their first child, yet half stated they had not wanted to become pregnant again. Ricketts (1973) estimated that at least 50% of teenage mothers become pregnant again within 3 years. It has been suggested that repeat pregnancies may be related to early emotional deprivation and a poor sense of self-identity (Copeland, 1974). Barglow et al., (1968) found that girls who were depressed were most likely to experience a repeat pregnancy.

Another major trend in adolescent pregnancy and childbearing is that today over 95% of adolescent mothers choose to keep their babies and raise them on their own (Fisher & Scharf, 1980). A generation ago out-of-wedlock pregnancy was regarded as a disgrace and most young women were persuaded, if not coerced, into giving up their babies for adoption.

Adolescent childbearing is also strongly associated with larger family size. Moore and Hofferth (1978) found that women ages 35-52 who had their first child when they were 15 or younger had nearly 3 times as many children as women who had not given birth until age 24, when race, religion, education and other factors which influence fertility were controlled for. Card and Wise (1978) also found

that women who gave birth before the age of 18 had 3.1 children on average, compared to 2.2 children for a matched sample of women who first gave birth in their twenties.

Experts point to a variety of complex factors which have led to the current "epidemic" of adolescent pregnancy. As societal values regarding pre-marital sex have changed, more and more adolescents are experimenting with sex at increasingly younger ages. Approximately 45% of all girls ages 15-19 and 20% of adolescents under the age of 14 are reported to be sexually active (Zelnik & Shah 1983; Koenig & Zelnik, 1982a, 1982b) . The average age for first intercourse continues to decline, with the average age for girls at 16.2 years and 15.7 years for boys (Center for Population Options, 1987). In addition, the average age for biological puberty also continues to decline. In the United States, menarche has declined from an average age of 14.5 years at the turn of the century to 12.5 years (Tanner, 1962), presumably due to improvements in nutrition and other socioeconomic conditions which facilitate healthy development.

At the same time that more adolescents are sexually active than ever before, there has been continued resistance to making contraceptive knowledge and devices available to teenagers (GAP, 1986; Fisher & Scharf, 1980). Various groups argue that making such information available will encourage teenagers to become sexually active; how-

ever, the rate of sexual activity for adolescents in countries where such information is more readily available is not notably higher and does not support this argument. Instead the U.S. rate of teenage pregnancy, abortion and childbearing exceeds the level of most Western European countries with more liberal attitudes about adolescent sexuality and contraception (Brooks-Gunn & Furstenberg, 1989). American teenagers receive confusing messages about sexuality and generally have poor access to contraceptive services (Jones et al., 1985).

Thus adolescent pregnancy and childbearing are a "major biological, mental health and social problem" (GAP, 1986, pp. 3). They are associated with a variety of negative consequences for the young parents and their offspring (Baldwin & Cain, 1980). Society, too, must bear the costs of "children having children" (Wallis, 1985). The adverse medical, social, educational, and economic consequences associated with adolescent pregnancy and childbirth will be discussed in depth in Chapter Two.

### Rationale for the Study

There has been a tendency for the media and researchers alike to oversimplify the complex problem of adolescent pregnancy and childbearing and to treat teenage mothers as if they constituted one homogeneous group. There has been very little research which has considered or examined dif-

ferences among adolescent mothers. Instead the majority of research studies have focused on the differences between pregnant and non-pregnant teens rather than on differences which exist among pregnant (or parenting) teens themselves. Furthermore, much of the current information about teenage pregnancy and childbearing has been derived from older teenage girls, ages 15-19 and then generalized to describe all adolescent mothers, regardless of age. Many current policies and programs designed to address the problem of adolescent pregnancy and childbearing have been developed on the basis of such data and generalizations.

Yet these generalizations do not take into account important differences that may exist between adolescent mothers of different ages. For instance it is quite likely that very young teenagers who become pregnant are considerably different than older adolescents in terms of both etiology and consequences; however, there is a dearth of research on developmental differences which could verify or refute this hypothesis. Thus, the Panel on Adolescent Pregnancy and Childbearing (Hayes, 1987) has recommended that research on age specific differences among adolescent mothers should be a priority. Very young teenagers in particular represent an "understudied" group (Hayes, 1987). De Anda (1983, pp. 33) has suggested that "...the younger the adolescent, the greater the perceived risks and costs." The collection of such research data is vital for the esta-

ishment of effective programs which are tailored to the specific developmental needs of participants.

Furthermore, there has been a lack of research on rates of depression, stress and other psychological problems which may be effecting teenage mothers. The limited amount of research that does exist in this area is extremely dated. New research on the incidence of psychological problems among teenage mothers is important for program planning and treatment (Barth et al., 1983).

#### Purpose of the Study

Following on the heels of the recommendations made by the Panel on Adolescent Pregnancy, this study was designed to focus on age-specific emotional and psychological differences between adolescent mothers. Specifically, the purpose of this study was to determine whether significant differences in depression, self-image and parenting stress existed between younger and older adolescent mothers. The theoretical basis and the relationship of each of these topics to each other will be discussed in greater detail in Chapter Two.

#### Hypotheses

A one-way Analysis of Variance (ANOVA) design was used to test the following hypotheses:



Ho<sub>1</sub>: There is no significant difference in depression between younger and older adolescent mothers as measured by the Reynolds Adolescent Depression Scale.

Ho<sub>2</sub>: There is no significant difference in self-image between younger and older adolescent mothers as measured by the Offer Self-Image Questionnaire.

Ho<sub>3</sub>: There is no significant difference in parenting stress between younger and older adolescent mothers as measured by the Parenting Stress Index.

### Definition of Terms

#### Adolescent

Adolescence is an important developmental stage in the life cycle which consists of major biological, cognitive, emotional and social changes (Simmons et al., 1983). It begins with the biological changes associated with puberty. The end of adolescence is less clearly marked but current Federal and legal definitions of youth place it at age 21. Developmental theorists typically divide adolescence into 4 stages: pre, early, middle and late adolescence (Freud, 1958; Blos, 1962; Kestenberg, 1967a, 1967b, 1968; Blotcky & Looney, 1980; Hatcher, 1973). For the purposes of this study, early adolescent mothers (Group 1) were defined as age 16 and under, middle adolescent mothers, (Group 2) as age 17, and late adolescent mothers, (Group 3) as ages 18 and over.

## Depression

Clinical depression consists of a dysphoric mood, feelings of sadness and other somatic, cognitive and behavioral symptoms which interfere with normal functioning (Newman, 1984). In this study, depression was assessed by the Reynolds Adolescent Depression Scale (RADS), a self-report instrument which measures the depth and severity of depressive symptoms. The depressive symptoms measured by the RADS are primarily based on those described in the Diagnostic and Statistical Manual for Mental Disorders (American Psychiatric Association, 1980). For a complete list of symptoms the reader is referred to Chapter Three.

## Self-Image

Self-image, the set of images, theories, and hypotheses that an individual develops and holds about him or herself, is an important component of psychological functioning (Offer et al., 1984). For the purposes of this study, self-image was assessed and defined according to the Offer Self-Image Questionnaire for Adolescents (OSIQ), a self-report instrument which assesses 5 major domains of self: Psychological, Social, Sexual, Familial and Coping.

## Parenting Stress

Stress is a response to change and is experienced at the physiological, emotional, cognitive and behavioral levels. The degree of stress is determined by the number of changes or "stressors", the period of time over which

they occur and the individual's ability to cope with the stressors (Selye, 1956; Holmes & Rahe, 1974). High levels of parental stress are associated with dysfunctional parenting, abuse and neglect (Allen et al., 1984; Abidin, 1986). The level of parental stress was evaluated and defined through the use of the Parenting Stress Index, (PSI), a self-report instrument that measures stress based on various characteristics of the parent-child relationship.

#### Limitations of the Study

The following limitations should be considered before any generalizations or final conclusions can be drawn from this study.

1. All subjects in the study were volunteers who were already participants in social or educational programs for adolescent mothers. Thus their response should not necessarily be assumed to generalize to the population of adolescent mothers who did not volunteer.

2. The subjects in the study were primarily Caucasian and thus results should not be generalized to minority populations.

3. The subjects in the study were primarily low-income, single mothers receiving public welfare assistance and thus results should not be generalized to married, middle class adolescent mothers.

4. Due to the small number of mothers in Group 2, (N=5), the results of our study should not be assumed to generalize to other 17 year old mothers pending further research with a larger sample size..

5. The investigation utilized 3 self-report instruments: The Reynolds Adolescent Depression Scale (RADS), The Offer Self-Image Questionnaire (OSIQ) and the Parenting Stress Index (PSI). Although self-report measures are commonly used in psychological assessment, they do have several drawbacks:

a) Subjects may only report selected feelings and behaviors and thus hide what is really going on.

b) Subjects may also respond with perceptions and attitudes which they do not really hold.

c) Subjects may be influenced by their own unique habits of language, introspection and cognitive processing.

6. Uncontrollable variables such as background differences, health, interpersonal relationships, unexpected personal crises and difficulties may have influenced the test results and the outcome of this study.

7. The presence of the researcher as a test administrator or an unconscious bias on the part of the researcher may have influenced the study.

## Summary

Chapter One described the complex problem of adolescent pregnancy and childbearing which currently exists in the United States. The rationale for the study was based on a need to gather data about age specific psychological differences which may exist among adolescent mothers. The hypotheses were designed to determine whether significant differences in depression, self-image and parenting stress existed among adolescent mothers from different age groups. A definition of terms and a description of the limitations of the study were also included in this introductory chapter.

## CHAPTER II. REVIEW OF THE LITERATURE

Literature related to the problem of adolescent pregnancy and childbearing is reviewed in this chapter:

- 1.) Psychological Factors Related to Adolescent Pregnancy and Childbearing.
- 2.) Sociocultural Factors Related to Adolescent Pregnancy and Childbearing.
- 3.) Negative Consequences Related to Adolescent Pregnancy and Childbearing.

### Psychological Factors Related to Adolescent Pregnancy and Childbearing

Various psychological theories have been proposed to explain the phenomenon of adolescent pregnancy and childbearing. Within the psychodynamic tradition, adolescent pregnancy is seen as a response to the pain of separating from the parents. Pregnancy is an attempt to cope with the loss of the parental love objects by replacing them with an infant (Blos, 1967). Thus, adolescent pregnancy represents a failure to achieve separation and individuation, two of the major developmental tasks of adolescence.

#### Parental and Family Relationships

Many studies have focussed on factors in the mother-daughter relationship which may predispose an adolescent

for an unintended pregnancy. Often that relationship is troubled and symbiotic in nature, characterized by alternating periods of alienation and intimacy. Barglow et al. (1968) found that the adolescent mothers in their study showed a pattern of intense struggle with their mothers before they became pregnant, followed by a rush back to their mothers once they delivered. Lewis et al. (1973) reported that all the adolescent mothers in their sample had experienced continuous and early maternal neglect. They theorized that this early deprivation led to the adolescent's wish to be close to the mother as well as intense anger towards the mother. Bolton (1980) has described the troubled mother daughter relationship as a "dependency-deprivation syndrome."

Fisher and Scharf (1980, pp.395) also noted a pattern of symbiosis with the mother and suggested that the pregnancy may reflect: "...an attempt to replace a lost object, an attempt to cure the mother's depression, an attempt to overcome early deprivation through identification with the new baby. The baby may be a hostage to the mother-grandmother for the daughter's own liberation...." Thus pregnancy may be an attempt to separate from the mother and achieve autonomy.

The motivation for pregnancy may vary according to the developmental stage of the adolescent mother. "For many pregnant early adolescents, breaking the mother's heart is

the only way to attempt to break away from close and frequently symbiotic wishes." (Hatcher, 1973, pp.71). However, middle adolescents may use pregnancy as a weapon to hurt a resented mother or as a means to compete with her whereas late adolescents may become pregnant in order to gain greater commitment from their boyfriends (Hatcher, 1973).

Abernethy et al., (1974, 1975) found that girls who were at high risk for unwanted pregnancy reported feelings of alienation from their mothers and lacked a supportive relationship with any maternal figure, especially during early adolescence. In contrast, girls who were at the lowest risk reported positive feelings towards their mothers. Stark (1986) reported that if a girl had a good relationship with her mother and the mother was opposed to early pregnancy, she was less likely to become pregnant. However, adolescent girls whose own mothers had given birth while they were in their early teens were at a greater risk for becoming pregnant (Gottschalk et al., 1964).

Olson and Worobey (1984) examined differences in mother-daughter relationships between pregnant and non-pregnant teenagers; they reported that pregnant teens felt that they received less affection and disclosure but more rejection and casual rule setting from their mothers than the non-pregnant group who reported that they felt more love, attention and interdependence.



Many adolescents who have had poor relationships with their own mothers and experienced early deficits in nurturing often seek the love and intimacy they missed by creating an infant they believe will love them unconditionally (Landy et al., 1983). Schaffer and Pine (1976) found that many pregnant adolescents were preoccupied with fantasies about "...being mothered and mothering." In reality, the infant is unable to fulfill adult needs; rather it is the infant's needs which must be met around the clock. Once the young mother realizes this, disappointment and anger may set in, leading to serious problems in the mother-infant relationship .

Notman and Zilbach (1975) reported that an adolescent may be pressured into pregnancy (at both an overt and subconscious level) by her mother because of the mother's need to replace her lost relationship with the daughter who is growing up and away from her. The mother may also find vicarious satisfaction in proof of her daughter's femininity and fertility. The entire family may also exert pressure if there is a need to replace a lost member who has died or is no longer with them for some other reason. Coddington (1979) and Swiger et al. (1977) both found that unplanned pregnancies often occurred following the diagnosis of illness or the death of a family member.

Other studies have examined the father-daughter relationship which in many cases is altogether lacking. Preg-

nant adolescents often come from single parent homes in which the father was absent (Barglow et al., 1968; Kaplan et al., 1979). Girls who have had not had a stable father figure in their lives seem to "...lack the expectation of a stable relationship with a male and become involved with the most undesirable men, many of whom were in and out of jail, alcoholic and/or heavy drug users." (Landy et al., 1983, pp. 690). Gottschalk (1964) and Abernethy (1975) also found that a flirtatious and seductive relationship with a father or brother placed an adolescent at a greater risk for unintended pregnancy. This type of relationship can lead to poor self-esteem and sexual acting out (GAP, 1986).

There have been a few studies which have examined the family background of adolescent mothers. In general, the families fail to provide adequate nurturing, protection and esteem that would lead to a sense of adequate emotional security (Bonan, 1963). Abernethy et al. (1975) reported that few pregnant adolescents reported having good relationships with their parents and that the parent's marriages were frequently characterized by "distance and hostility". Landy et al. (1983) have suggested that a "family syndrome" consisting of a weak or absent father and a dominating mother with whom the daughter is symbolically enmeshed may increase the probability for teenage pregnancy.

Pregnancy may also be a means to escape from sexual abuse or other family problems such as alcoholism and violence (Curtis, 1974). Finally, dysfunctional families may fail to provide the developing adolescent with a basis for making ethical and moral decisions and may provide little reinforcement for "good" behavior such as fulfilling educational and vocational goals (Kaplan, 1979).

### Personality Traits

There has also been an attempt to determine which personality traits, if any, are predictors of teenage pregnancy and motherhood. Some of the traits which have been studied are low self esteem (Faigel, 1967; Abernethy et al., 1975; Held, 1981), denial (Rader et al., 1978), weak ego strength (Babikan & Goldman, 1971; Miller, 1973), external locus of control (Connolly, 1975; Meyerowitz and Malev, 1973) and dependency (Heiman & Levitt, 1960; Loesch & Greenberg, 1962).

Meyerowitz and Malev (1973) identified 3 attitudes which are often antecedents to adolescent pregnancy: (1) a passive, hopeless attitude combined with a belief in fate; i.e. external locus of control (2) feelings of social alienation and rejection and (3) a tendency towards impulsivity and acting out. Other writers have also identified impulsivity, acting out behavior and an inability to antic-

ipate consequences as typical of adolescents who become pregnant (Babikian & Goldman, 1971; Barglow et al., 1968;)

Pauker (1969) administered the MMPI, the most frequently used personality inventory, to 117 pregnant adolescents. He found few differences between their scores and that of non-pregnant girls in a control group; however, he did find that the pregnant girls had a low frustration tolerance and were more likely to act out.

In general, the results of these studies have yielded mixed results. Some researchers have found evidence for significant differences between pregnant and non-pregnant subjects while others have not. Many of the scores on personality inventories and other psychological assessment instruments fall within normal ranges. In addition, many of these studies were poorly designed, lacked control groups, a careful definition of terms and sufficient statistical analysis (Landy et al., 1983).

Furthermore, many of the studies on the psychological correlates of teenage pregnancy are very dated and are based on data collected during the Fifties, Sixties and early Seventies, an era when sexuality in general and teenage pregnancy in particular were regarded very differently. At that time, teenage pregnancy was nearly always regarded as deviant and delinquent behavior which stemmed from psycho-pathological origins. (Deutsch, 1945; Eisenberg, 1956). In view of the many changes in our

society that have taken place during the last 30 years, it is likely that the adolescent who becomes pregnant today differs significantly from her peers in previous generations. At the very least, these studies should be treated with caution and certainly deserve "...re-examination and replication." (Barth et al., 1983, pp.472,).

Several decades of research have failed to identify any single personality variable or set of variables which are held in common by all or even a majority of teenage mothers. Furthermore none of the personality traits which have been studied have proven to be good predictors of adolescent pregnancy and thus deserve to be regarded with "skepticism" (Barth et al., 1983). Thus, "The conclusion seems inescapable that few, if any, differences can be demonstrated in either intelligence, personality, or psychopathology when unmarried pregnant girls are compared using appropriate methodology to their non-pregnant peers." (Quay, 1982, p. 87)

As Gottschalk et al. (1964) have pointed out, the search for a specific type of personality deviation or other psychological antecedent of adolescent pregnancy is "naive" because there are many different "starting points" and "avenues" which may lead to the same end point, i.e. premature pregnancy. In reality, adolescent mothers do not constitute a psychologically or developmentally homogeneous group nor do they become pregnant for the same reasons. It

is more likely that adolescent mothers may be divided into various subgroups within the population who share a cluster of predisposing variables and behaviors. For example, Rosen et al. (1961) proposed 5 possible subgroups based on "Passive-Dependent, Subcultural, Psychopathic, Manipulative and Situational" antecedents. Roosa (1986) has also suggested that adolescent mothers may comprise 3 distinct groups.

### Depression

Depression has also been associated with adolescent pregnancy. There is a widespread belief that depression is a normal feature of adolescence. Erik Erikson, (1968) described the adolescent period as one of "normative crisis". Similarly, Anna Freud (1958) spoke of adolescence as being characterized by periods of upheaval and turmoil. Blos (1962) and Laufer (1966) have referred to adolescence as a period characterized by mourning and sadness due to the relinquishing of emotional ties with the parents. The loss of the parental love objects is accompanied by a sense of mourning and feelings of emptiness and intense loneliness.

Adolescent girls are more at risk for depression than boys. After the age of 10, girls become increasingly at risk for depression and by the time they reach adulthood, depressive disorder is twice as frequent among females than males (Weiner, 1982; Petersen, 1987). The reasons for sex

differences in depression are unclear. Some theorists have speculated that women may be genetically predisposed to depression (Winkour, 1972) whereas others have suggested that women become depressed in response to elements of the traditional female role in society, including discrimination, low social status and limited life options (Radloff & Rae, 1979). Women may also "learn" to be depressed because they are reinforced for passive-dependent behaviors and crying (Weissman and Paykel, 1974).

Current estimates of the incidence of depression in the adolescent population with both sexes combined, range from a low of 7.6% for older adolescents (Weiner, 1982) based on admissions to outpatient psychiatric services, to a high of 12-18% based on the Reynolds Adolescent Depression Scale and the Beck Depression Inventory (Reynolds, 1987). Depression is sometimes difficult to detect among adolescents because it may be expressed indirectly or "masked", through a variety of "acting out" and delinquent behaviors (Glaser, 1967; Cytryn & McKnew, 1972). Girls tend to act out sexually while boys are more likely to break rules and regulations (Offer et al. 1986).

Depression does effect a significant number of adolescents and is considered to be a major mental health problem within that age group (Reynolds, 1987). However, large scale studies of the adolescent population have failed to support the traditional view that the majority of

adolescents experience the depression and sadness attributed to them in the developmental literature, at least at a level of clinical significance. (In considering adolescent depression it is important to distinguish between normal periods of moodiness and sadness and clinical levels of depression).

With this caveat in mind, Douvan and Adelson (1966) studied a large representative sample of junior high and high school boys and girls and concluded that most teenagers do not experience the turmoil, acting out behavior or depression often ascribed to them. Other recent studies indicate that between 10-20% of adolescents experience severe emotional and psychological problems (Offer et al., 1981; Petersen, 1988).

Various studies have examined the relationship between depression and adolescent pregnancy; however, most of them are quite dated. According to Barth et al. (1983), there is a strong need for more recent data on rates of depression among pregnant adolescents. Josselyn (1971) has estimated that from 5-20% of adolescent pregnancies involve serious problems, including depression, which may require psychological or psychiatric intervention.

Based on their sample of 76 pregnant adolescents, Gottschalk et al. (1964) found that some girls who were very depressed and otherwise psychologically impaired, did not attempt to "resist" sexual involvement and did not un-



derstand basic facts about conception and the possibility of pregnancy.

Greenberg et al. (1959) and Heiman & Levitt (1960) reported that depression was an antecedent to adolescent pregnancy. They found that the loss of the parental love objects was associated with depression and suggested that the pregnancy which follows was in direct response to the depression. Coddington (1979) found that 17% of a sample of pregnant adolescents had experienced the loss of a parent and over half had experienced the death of at least one family member within the past year.

Barglow et al. (1968) reported that adolescent mothers appeared to use pregnancy to ward off depression by creating an object to love. He also found that 84% of a group of girls who experienced repeat pregnancies showed evidence of passive-dependent and depressive symptoms compared to 33% of a group of girls who had experienced only one pregnancy.

Hatcher (1973) described the youngest pregnant adolescents as being the most vulnerable to depression and the most likely to attempt suicide. They were also the most likely to be unaware of and to deny their own feelings of sadness. Salguero et al. (1980) studied adolescent mothers and infants at-risk and also found that the youngest adolescent mothers were most at-risk and the most likely to deny their feelings. They did not appear depressed, denied

that any problems existed, and were resistant to help. Older mothers were more likely to be placed in the moderate or low-risk categories and, in contrast, they appeared openly depressed but were more receptive to help. Thus, depression may be more difficult to recognize among the youngest adolescent mothers because it is masked by denial. Spietz (1988) has also described a form of masked maternal depression in which high risk mothers reported that everything was fine when it clearly was not.

Gabrielson et al. (1970) reported that the suicide rate for a sample of women who had been pregnant as teenagers was 10 times greater than normal. Common reasons for the suicide attempts were emotional illness, including chronic and acute conditions, as well as post-partum depression, marital problems and physical illness, especially gonorrhoea and pelvic inflammatory disease. Several explanations for the elevated suicide rate are possible. Either pregnancy and child bearing during adolescence were so stressful that some young women resorted to suicide, or the suicide may have been a reflection of a chronic pattern of instability; it is also possible that both the pregnancy and the suicide attempt stemmed from underlying problems.

However, it is important to point out that although this study was published in 1970, it was based on retrospective data of adolescents who gave birth during 1959-1960 and attempted suicide following delivery, at ages

ranging from 17-25. Nearly one third of the subjects attempted suicide long after delivery when they were well into their adult years. Thus, many intervening variables other than adolescent pregnancy may account for suicide attempts later in life.

Abernethy et al. (1975) noted that pregnant adolescents who had a poor relationship with their mothers had low levels of self esteem, a factor often associated with depression. Feelings of worthlessness may not only contribute to a vulnerability for early pregnancy, they may also lead to the selection of inappropriate partners who are abusive and troubled by multiple problems such as alcoholism and drug abuse.

These studies suggest that there is a relationship between depression and adolescent pregnancy. Depression may be one precursor of adolescent pregnancy. Furthermore, some adolescent mothers, particularly the youngest, may become depressed in response to a premature, unintended pregnancy. However in young adolescents, depression may be difficult to detect due to denial and a general lack of awareness about internal feeling states.

#### Self-Esteem and Self-Image

All of the major personality theorists in the field of psychology have written extensively about the self and the connection between self-image and behavior. A positive

self-image and high levels of self-esteem are an important component of psychological well-being for the adolescent. Aldous (1978) has stated that the major developmental task of adolescence is to develop a sense of self-esteem, self-acceptance and a positive self-identity. Adolescence is a period during which the young person experiments with different roles, values and attitudes in an effort to define him/herself. The development of a core sense of self-identity and self-esteem is critical if the adolescent is to make a successful transition to adult life (Erikson, 1968).

An adolescent's self-image and level of self-esteem have been correlated with personality development, relationships with family and friends, coping abilities and physical and emotional health (Offer et al., 1981). Poor self-esteem has been associated with a variety of emotional, physical and interpersonal problems including delinquent adolescent behavior.

A number of factors influence the adolescent's developing sense of self-esteem and self-image. There is a high correlation between parent-child communication and the adolescent's self-image. Good communication is associated with a positive self-image while poor communication is associated with lower psychological adjustment and a high risk of developing severe emotional problems. Offer et al. (1982) reported that the quality of mother-daughter commu-

nication was especially important for the adolescent girl's developing self-image.

Pubertal change and physical development can also effect self-image. Girls who reach puberty earlier than their peers have a poor body image and are more dissatisfied with their appearance than late developing girls. They are also more popular with the opposite sex but experience greater academic and behavior problems at school (Simmons et al., 1983).

Studies that have focussed on the self-image and self-esteem of pregnant adolescents or parents have yielded some mixed results. Abernethy et al. (1975) found that low self-esteem may be a factor in unwanted pregnancy. Zongker (1980) administered the Tennessee Self-Concept Scale to 84 single adolescent mothers and found that they had very low self concepts, serious emotional problems and poor coping behavior. They rated themselves significantly lower than married mothers in terms of bodies, appearance, sexuality, health, social relationships and personal worth. However, Held (1981) found that self-esteem scores for pregnant teenagers fell within a normal range based on the Coopersmith Self-Esteem Inventory.

However, in some subcultures, early pregnancy may be a legitimate means for adolescent girls to increase their self-esteem and achieve a positive identity (Buchholz & Gol, 1986; Kane & Lachenbruch, 1973). Early pregnancy is regar-

ded as a desirable and normal rite of passage to adulthood and is an acceptable way for the adolescent to gain attention and raise her status within the community. During pregnancy the adolescent may receive special attention from her family, medical and school personnel in the form of prenatal care, counseling, new clothing, special foods and gifts for the baby. For some adolescents this may be the first time in their lives that they have received such attention (Bierman and Strett, 1982). However, this attention is short-lived as it is redirected to the baby shortly after birth.

In spite of the mixed results and the relatively small number of studies which are available, the relationship between self-image, self-esteem and subsequent behavior is firmly established and should not be overlooked as a potentially important contributing factor to adolescent pregnancy and parenthood.

### Stress

Stress may also be a factor in adolescent pregnancy. An individual experiences stress when he or she is faced with a demanding or threatening situation, i.e. a stressor, and does not have the resources to cope with it. Chronic and prolonged stress which exceeds the individual's coping responses is manifested at the cognitive, emotional, neurochemical and endocrinological levels and has a negative im-

pace on both emotional and physical health (Ley & Freeman, 1984). Holmes and Rahe (1967) reported a strong correlation between the number and intensity of stressful life events that an individual has experienced within the last 12 months and the incidence of subsequent health problems and psychological distress. However, the negative effects of stress can be mediated by a variety of factors such as adequate coping skills and social support (Lazarus, 1966; Cobb, 1976) which appear to have a powerful "buffering" effect on the harmful consequences of stress.

Both pregnancy and parenthood are considered to be stressful life events even for the most well prepared adult (Holmes & Rahe, 1967; Saraason, 1978). When major life events such as pregnancy occur prematurely, the individual may not have the necessary skills to cope with the situation and a crisis may ensue (Neugarten, 1970). Adolescents lack the coping skills necessary for dealing with stressful events and may experience feelings of helplessness and low self-esteem (Yeaworth, 1980). Adolescent girls are more likely to respond to stress with depression (Petersen, 1987). Sexual activity may also be one way of coping with loss and stress (Mathis, 1976).

Coddington (1979) reported a correlation between life events and adolescent pregnancy; he compared life events experienced by pregnant and nonpregnant adolescents during the past year. Pregnant adolescents scored higher than

controls in all categories and significantly higher in the family category. Fifty-four percent of the pregnant group reported the death of a family member compared to 23% of the control group and 50% reported serious family illness in contrast to 31% of the controls. Seventeen percent of the controls had experienced the death of a parent and 25% reported marital separation or divorce between their parents. All together, almost half of the pregnant subjects had experienced two or more losses during the past year compared to 20% of the controls.

#### Sociocultural Factors Related to Adolescent Pregnancy and Childbearing

A multitude of non-psychological factors such as socioeconomic status, academic performance and aspirations, dating patterns and contraceptive knowledge have been linked to adolescent pregnancy and childbearing.

#### Academic Performance and Aspirations

Girls who become pregnant during adolescence have generally been found to suffer from poor school performance, attendance (Card & Wise, 1978; Curtis, 1974; Phipps & Yonas, 1980) and lower educational and vocational aspirations (Ireson, 1984) even before they conceive. Two explanations have been suggested; it is possible that girls who



become pregnant may have pre-existing learning disabilities or intellectual deficits. One rather dated study of 3,594 unwed adolescent mothers found that the mean IQ for the total sample was 100.19, and for the portion of the sample that had experienced repeat pregnancies, the mean was 93.29 (Pearson & Amacher, 1956).

An alternative explanation is that many lower socioeconomic subcultures do not place much value on educational and career aspirations, especially for women, and may not encourage adolescents to set or pursue such goals (Buchholz & Gol, 1986). Low socioeconomic status may also foster a sense of hopelessness about viable life and career options and result in "minimal" expectations about the future (Quay, 1982).

### Dating Patterns

De Anda (1982) reported that teens who became pregnant in early adolescence (ages 12-17 years) were more likely to begin dating a full year earlier ( $M=13.7$ ) than those who become pregnant after age 18. They also tended to establish a steady relationship a year earlier than the older group. Unfortunately, the youngest girls also were the least knowledgeable about birth control and often first learned about contraception just before or during the time they started dating, between 13 and 14 years of age.

Girls whose families hold a tolerant family attitude towards early sexual activity and childbearing also run a greater risk of becoming pregnant (Stark, 1986). It has also been suggested that peer influence may be one antecedent of adolescent pregnancy; girls who have friends who are teenage parents may be more at risk for becoming pregnant themselves (Brooks-Gunn & Furstenberg, 1989).

#### Contraceptive Knowledge and Use

In terms of birth control, our society continues to demonstrate a persistent reluctance to making contraceptive information and devices available to adolescents. For instance, in 1987 and 1988, respectively, the three major networks refused to air public service announcements about teenage pregnancy and contraceptives because they were "too controversial" (Brooks-Gunn & Furstenberg, 1989). Fisher and Scharf (1980) found that 30% of a sample of pregnant teens attributed the pregnancy to difficulty in obtaining contraceptives. American teenagers are less likely to use contraception and are 3 times more likely to conceive an unintended pregnancy than their European peers (GAP, 1986). Many adolescents have inadequate knowledge about the basic facts of reproduction and contraception and those that do use contraception often use the least effective methods or fail to use them correctly (Zelnik & Kanter, 1977).

About half of all adolescents do not use contraceptives the first time they are sexually active (Zelnik & Shah, 1983). Younger adolescents are much less likely to use contraceptives the first time they have intercourse and if they do they tend to pick a less reliable method such as withdrawal, rhythm or douching (Hayes, 1987). Yet it has been reported that 70% of all pregnancies occur within the first six months of intercourse, with 20% occurring in the first month alone (Zabin et al., 1979).

Developmentally, adolescence is associated with increased risk-taking behaviors which may have long-lasting consequences (Jackson & Hornbeck, 1989). Cobliner (1974) and Cobliner et al. (1975) have theorized that the failure of young adolescents to use contraceptives may be attributed to cognitive immaturity. Effective contraceptive use may only be possible once the adolescent has reached the stage of Formal Operational Thinking (Piaget & Inhelder, 1969) which permits an individual to appreciate the consequences of behavior without having to experience the outcome.

For instance, many teens know vaguely about birth control but make no effort to obtain it because they adopt the attitude that "It can't happen to me." Other commonly reported reasons for not using contraception are that the adolescent thought she was too young to get pregnant,

couldn't get pregnant during her period or from having intercourse "just once" or infrequently.

McDonald (1979) reported a connection between external locus of control and the failure to use birth control. Individuals who feel apathetic and powerless to control their own lives have little reason to use contraceptives since they believe their fate is in the hands of external forces.

Another explanation for the failure to take precautions is that a large number of girls report that they were not expecting to have intercourse (Zelnick & Kantner, 1979). There may also be a psychological element of denial in the failure to use contraception for even in this day and age, "nice girls" do not plan to have sexual intercourse; rather they are swept away in a moment of spontaneous passion (Campbell & Barnlund, 1977).

Adolescents who become pregnant are less likely to engage in effective communication and are non-assertive with their partners (Campbell & Barnlund, 1977). Jorgenson et al. (1980) reported that the less interpersonal power and influence a girl had in her relationship with her partner, the more likely she was to become pregnant. Furstenberg (1976) reported that the most common reason for sexual activity cited by a sample of young mothers was an inability to resist pressure from their boyfriend. Furthermore, male partners frequently object to the use of birth control devices (Zelnick & Kanter, 1979); an adolescent girl may

not be assertive enough to insist on the use of contraceptives even though she does not wish to become pregnant.

### The Negative Consequences of Adolescent Pregnancy and Childbearing

#### Medical Consequences

For a variety of reasons, early pregnancy and childbearing place the adolescent mother and her child at risk for adverse and long-lasting medical, social, economic and educational consequences (Furstenberg, 1976; Furstenberg et al., 1989; Moore et al., 1981; Hayes, 1987). Adolescents who are poor, very young, (age 15 and under) and Black are at even greater risk for negative consequences (GAP, 1986). Risk factors for the young mother and her infant begin at the moment of conception. Adolescent mothers have a "...three times greater chance of toxemia, prenatal and perinatal morbidity, hypertension, neonatal and maternal death." (Sugar, 1976, pp. 253). Webb et al. (1972) reported a 22% rate of labor complications and 18% rate of neonatal death; very young mothers (under age 15) have the highest rate of pregnancy complications and are 2.5 times more likely to experience maternal death than mothers, aged 20-24 (Hayes, 1987). In addition, young mothers are 14% more likely to give birth prematurely and to deliver low birth weight babies (Sugar, 1976). Neurological problems

which are associated with prematurity are 2-4 times more common in the infants of adolescent mothers (Sacker & Neuhoff, 1982).

Although some of the medical problems associated with teenage pregnancy and childbearing are related to biological immaturity and early maternal age, most studies indicate that the critical factor is the quality of prenatal and postnatal care and nutrition that the mother receives (Hayes, 1987; Baldwin & Cain, 1980). Unfortunately, many pregnant adolescents receive little or no prenatal care either because they cannot afford it or because they do not know that they are pregnant. Some adolescents do not know they are pregnant until they are well into their second trimester because they experience minimal weight gain and may be used to having irregular menstrual periods which are not uncommon during early adolescence.

A woman who is not aware that she is pregnant not only fails to get the proper nutrition during the critical first trimester, she may also inadvertently expose the fetus to harmful substances which are capable of crossing the placental barriers. Pregnant teens, like their peers, often have poor health and nutrition habits and are also likely to be experimenting with tobacco, drugs and alcohol.

### Cognitive, Developmental and Behavioral Consequences

The consequences of poor prenatal care and nutrition place the infant at risk for premature delivery, low birth weight, birth defects, developmental delays, lower IQ and behavioral problems (Sugar, 1976; GAP, 1986). A study of children who had been undernourished during infancy found that 60% of the sample suffered from attention deficit disorder, a developmental syndrome which consists of easy distractibility, poor memory, school performance and impulsive behavior (Galler, 1984). These effects persisted over time and led to poor school performance and a high drop out rate. In terms of postnatal nutrition, a Congressional study on childhood and family development in low-income families implicated poor nutrition as a factor in delayed cognitive development, mental retardation, poor school performance and even juvenile crime (Comptroller General, 1979).

Poor school performance is associated with impairment in social functioning such as aggressive and oppositional behaviors which are often the precursors of juvenile crime. Brooks-Gunn and Furstenberg (1986) found that the adolescent children of teenage mothers had a high incidence of such problems ranging from school suspension and running away to substance abuse and assault. However, they did not control for socioeconomic status or family structure. Several other studies reported that the children of adolescent

mothers, especially their sons, were more likely to be rated as impulsive and hyperactive (Moore, 1986; Maracek, 1979; Mednick & Baker, 1980).

Small but consistent deficits in cognitive development and functioning have been found in children born to adolescent mothers (Levine et al., 1985; Broman, 1981; Maracek, 1979, 1985). Hardy et al. (1978) and Rinebold (1982) found that early maternal age correlated with poor school performance and lower IQ and achievement scores on the WISC and WRAT. In one study involving over 48,000 eleven year old children, the offspring of mothers who had given birth during adolescence scored lower on tests of verbal reasoning than the children of adult mothers even when the effects of socioeconomic class were controlled for (Record et al., 1969). Two surveys found that nearly half of the children born to adolescent mothers had failed a grade compared to about 20% of children born to older mothers (Furstenberg et al., 1989).

In a smaller study of 3,200 children which excluded low birth weight infants, Lobol et al., (1971) found that the children of adolescent mothers scored substantially lower on the Stanford-Binet IQ test. However, Davis and Grossbard-Schechtman (1980) and Kinard & Reinherz (1984) reported that the mother's educational level was more important in determining cognitive development than age alone. The children of mothers who dropped out of school



before they gave birth performed significantly more poorly than children whose mothers remained in school or continued their education after delivery (Moore, 1986). However socioeconomic factors appear to be important influences on cognitive development as well (Broman, 1981; Belmont et al., 1982).

### Problems in Parenting and Attachment

The cognitive deficits and behavioral problems which are frequently reported in the offspring of adolescent mothers may also be attributed to early problems in the mother-child relationship. Spitz (1965), Bowlby (1962, 1967) and Ainsworth (1964) have suggested that infants who develop a secure "attachment" to their mother are more likely to experience optimum development. Attachment theory is derived from ethnological principles and proposes that mothers and infants are genetically programmed to respond to each other; the infant behaves in ways that ensure its mother will attend to its needs and the mother responds to the cues with attention and love. The benefits of secure attachment appear to persist over time; several studies have found that securely attached infants tend to mature into friendly toddlers who are at ease with adults and peers and cope well with challenges and adversity (Lieberman, 1977; Main, 1973; Paster, 1981; Waters et al., 1979; Matas et al., 1978; Arend et al., 1979).

Sometimes this programming may not operate as nature intended it to; either the baby may fail to emit the responses that normally ensure the mother's care and attention or the mother may fail to read the infant's cues, or both. Infants who do not form a strong bond or attachment may exhibit a variety of cognitive, behavioral and social problems. Neglected infants may develop a failure to thrive syndrome, clinically known as "Reactive Attachment Disorder" (American Psychiatric Association, 1980). The infant typically appears listless and depressed and may even stop growing due to decreased production of human growth hormone. However, once an optimum level of care and nurturing has been restored, normal development resumes. Psychological difficulties which occur in adulthood may also have their roots in the inability of the child to form a trusting and secure relationship with its mother (Horney, 1937; Mahler, 1968; Erikson, 1963).

Adolescent mothers are more likely to experience difficulties developing a strong attachment to their infants due to developmental immaturity, low self-esteem and a lack of adequate knowledge about good parenting skills (Elster et al., 1983; Levine et al., 1985). In addition, many adolescent mothers are physically separated from their infants during the important first weeks of life if the baby is premature or experiencing other health problems. As previously noted, fully 14% of infants born to adoles-

cent mothers are either premature, low birth weight or both and are more likely to experience postnatal health problems and developmental delays. Premature or low birth weight infants are more difficult to care for (Sugar, 1976); thus the parents of premature infants experience higher levels of stress and are more at risk for inadequate parenting, abuse and neglect (Zakreski, 1983).

Landy (1981) found that at 12 months the infants of teenage mothers were more likely to be insecurely attached than the infants of older mothers. McAnarney (1983), Epstein (1980), Osofosky & Osofosky (1970) and Sandler (1981) found that teenage mothers engaged in more physical than verbal interaction than older mothers and fewer adult maternal behaviors such as high-pitched voice, touching and synchronous movements. Ragozin et al. (1982) reported that the younger the mother, the less adequate was her behavior towards her baby.

Jones et al. (1980) found that younger mothers who were observed during a post partum feeding session were significantly less responsive to their infants than older mothers. Another study which compared the Brazelton scores, (social and neurological assessments taken two days after birth,) for the infants of adolescent and non-adolescent mothers, found that the babies of teenage mothers were significantly more likely to be underaroused or overaroused than the babies of non-adolescent mothers. However, the

scores did fall within a normal range and similar studies have shown that when mothers are matched for quality of medical care and obstetric risk factors that maternal age does not have an independent effect (Lester, 1978).

Levine et al. (1985) compared mother-infant interactions and "teaching" sessions between adolescent and non-adolescent mothers. During face to face interaction, the non-adolescent mothers showed more positive affect towards their infants. During teaching sessions non-adolescent mothers talked or vocalized to their infants almost twice as much as adolescent mothers and showed their babies how to do various tasks. Adolescent mothers were more likely to just hand an object to the infant and tell them to do the task rather than attempting to teach them how to do it.

One of the major ways that adolescent mothers differ from older mothers is in their use of language; they simply do not talk to their babies as much, to engage them, comfort them, teach them, or discipline them. Nor do they attempt to teach them how to talk, in the belief that their child will learn to talk by simply watching television or playing with other children. Not surprisingly, language deficits often show up in the children of adolescent mothers as early as 12 months. If the child is not treated, he or she will lag significantly behind other children by the age of three (Bierman & Streett, 1982).

Adolescent mothers also commonly experience problems in the areas of feeding, toilet training, language development, discipline and play. Early problems in parenting may set the stage for developmental delays and other difficulties later on. For instance, a child who is play-deprived is likely to show cognitive, social, linguistic and motor deficits. The importance of play cannot be overestimated since its primary function is learning. However, adolescent mothers rarely know how to engage in interactive play with their children and they tend to select toys which are not appropriate to the child's age or unsafe or both (Bierman & Streett, 1982).

The quality of parental care that a young mother is capable of giving is related not only to her age but to her level of cognitive development as well. Adolescents are in the process of acquiring the capacity for logical and abstract thought (Piaget & Inhelder, 1969) and have yet to attain full cognitive maturity which may "...inhibit and retard the development of realistic expectations and attitudes regarding child rearing." (Elster et al., 1983).

Field et al. (1980) found that adolescent mothers had more punitive attitudes and less realistic developmental expectations for their children than adult mothers. For instance, adolescent mothers often misinterpreted the first signs of aggressive behavior such as spitting, throwing or grabbing as "bad" behaviors which the child does on purpose

to annoy her. Their response to such behavior was inconsistent, varying between punishment and a tendency to encourage aggression without setting any limits on appropriate behavior (Bierman & Streett, 1982).

Delissovoy (1973) also reported that adolescent mothers "consistently" overestimated the rate of cognitive, social and language development in infants. Similarly, Larsen and Juhasz (1985) found that low levels of social and emotional maturity coupled with a lack of knowledge about child development were associated with negative attitudes towards parenting whereas positive attitudes were associated with high levels of maturity and knowledge.

Adolescent mothers often have difficulty perceiving their children as separate individuals with needs of their own and tend to treat them as an extension of their own needs, wishes, fears and frustrations. In general, adolescent mothers tend to be more self-centered and impulsive than older mothers. "The adolescent mood swings, preoccupation with her own fantasies, and self-centeredness often make her inaccessible to her child or accessible only on an inconsistent basis." (Bierman & Streett, 1982, pp. 421)

#### Parenting Stress and the Potential for Abuse

High levels of parental stress may lead to dysfunctional parenting (Abidin, 1986). Stressful parenting can cause parents to feel more negative about their children

and to interact with them less often and in a less positive manner (Allen et al., 1984). A number of studies have suggested that adolescent parents may experience parenting as more stressful than older parents. Adolescents lack the coping skills necessary to deal with stress (Yeaworth, 1980).

In addition, premature pregnancy requires that the adolescent adapt to the challenges of being both a parent and a teenager at the same time. The stress that is normally associated with the major life transitions of adolescence, pregnancy and parenthood is compounded when these events occur simultaneously. The inherent conflict between being a teenager and a parent at the same time poses enormous challenges for most adolescent parents and may lead to serious problems for the young mother and her child (Bierman & Streett, 1982; Salguero et al., 1980).

Younger (1984) found that an unplanned pregnancy was the major predictor of the mother's stress level eight weeks postpartum. This has significant implications for adolescent parents since most adolescent pregnancies are unplanned (Dryfoos, 1982; Hayes, 1987).

The majority of adolescent mothers today are single parents and must deal with the stress of parenthood without the support of a partner (Hayes, 1987). Allen et al. (1984) and others have also noted that single parents, regardless of age, experience more stress than married

parents and thus may be at a greater risk for poor parenting. Adamakos (1986) also found that mothers who received little social support and felt more isolated had higher levels of stress.

When single parent status is coupled with a high-risk, premature or handicapped infant with significant health and developmental problems, the level of maternal stress increases even more (Zakreski, 1983). As discussed previously, the children of adolescent mothers frequently experience postnatal and developmental complications and are more difficult to care for (Sugar, 1976; Sacker & Neuhoff, 1982).

A number of studies have attempted to determine whether adolescent mothers are more likely to neglect or abuse their children than adult mothers; the available research has yielded mixed results. Elster et al. (1983) found that the children of adolescent parents were at a slightly increased risk for child abuse due to both socioeconomic and psychological factors such as excessive stress, inadequate social support, inadequate knowledge of child development and "inappropriate" child-rearing attitudes. Gil (1970) analyzed over 9,000 reports of child abuse in 30 counties and cities and reported that adolescent mothers were no more likely to be abusive than older mothers.



A sample of over 5,000 child maltreatment cases which were reported to Arizona Child Protective Services in Maricopa County over a 2 year period revealed that 36.5 % of the cases involved mothers who were or had been an adolescent at the birth of at least one child (Bolton et al., 1980). However, the sample consisted mostly of low-income, minority, single parents and thus should not be inferred to be representative of all adolescent mothers. A study by Menken and McCarthy (1979) which analyzed reports to the Georgia Child Abuse Registry over a 3 year period, determined that adolescent mothers were slightly more likely to be abusive than older mothers.

In summary, it would appear that although there is a relationship between maternal age and child maltreatment; socioeconomic status, stress and lack of support may play a far greater role in determining the potential for child abuse than age alone (Kinard & Klerman, 1980; Bolton et al., 1980). It is also important to remember that many individual differences exist among young parents and that the negative consequences associated with adolescent pregnancy and childbearing vary based on developmental, psychological and situational factors. Some adolescent mothers are relatively well prepared for parenthood whereas others are far from ready (Salguero et al., 1980). In general, early adolescents are least prepared for pregnancy and parenthood; however, for late adolescents, pregnancy

and childbearing may be a relatively positive experience and represent an appropriate transition to adult life (Fine & Pape, 1982).

### Economic and Educational Consequences

As a group, adolescent mothers are disproportionately poor and more often than not, depend on public assistance for support (Furstenberg, 1976; Moore et al., 1982; GAP, 1986). Nearly two thirds of all women receiving welfare payments gave birth to their first child when they were teenagers. It has been estimated that total welfare related expenditures related to teenage childbearing are approximately \$16.6 billion dollars per year (Hayes, 1987). Furthermore this may be a conservative estimate since it only includes figures from 3 major programs: Aid to Families with Dependent Children, Food Stamps and Medicaid (Hayes, 1987). Girls who first gave birth during mid-adolescence were twice as likely to be poor and even girls who gave birth in late adolescence were 1.4 times more likely to be poor in comparison to adult mothers (GAP, 1986).

Teenage mothers are more likely to drop out of school even when compared with girls of similar socioeconomic background and academic aptitude. Some studies have found that girls who became pregnant during adolescence had a history of difficulties in school, including poor grades, attendance and lower educational and vocational goals even

before they became pregnant. Research has consistently shown that girls who have a child at a young age complete less formal education than later childbearers (Card & Wise, 1978; Haggstrom et al., 1983; Moore & Hofferth, 1980; Hofferth & Moore, 1979). Girls who become pregnant by age 15 completed an average of 9 years of education and those who became pregnant at age 16 and 17 completed an average of 10.5 years (Moore et al., 1979).

The majority of teenage parents never complete their high school education (GAP, 1987). Although an increasing number of young parents eventually do return to school and complete a GED or high school diploma, they never really "catch up" to their peer group and the gap in educational attainment and earnings appears to increase over time (Moore et al., 1981; Hayes, 1987).

Moore et al. (1981) have proposed a causal model to explain how adolescent childbearing and poverty interact; the younger the mother is at the time of the first birth, the lower her level of education will be and the higher the number of children (family size) will be. The level of education and family size combine to limit occupational opportunities, the number of hours the mother is available for work and ultimately earning potential. The final result of this combination of factors is often poverty.

Educational opportunities for pregnant and parenting adolescents have improved considerably in the last fifteen

years. In 1975, school districts were mandated by Title IX to provide ongoing educational services to pregnant teenagers; prior to that time pregnant girls were usually prohibited from staying in school and completing their education (Hayes, 1987). However, even today, some schools still make it known in a variety of subtle and more blatant ways that a pregnant teen or mother is unwelcome because she represents a "bad influence" for her peers.

In spite of recent improvements, a young woman who wishes to return to high school after she has given birth, still faces many obstacles which often seem insurmountable. The greatest barrier for most adolescent mothers who wish to return to school is that they lack daycare and do not have the money to pay for it. Although some school districts do provide special programs for teen mothers which include on-site daycare, they still tend to be the exception rather than the rule. Adolescent mothers have special needs that must be met if they are to succeed in school. However, few school districts provide comprehensive programs designed to meet the special needs of pregnant or parenting adolescents.

In light of the enormous costs which are associated with adolescent childbearing, programs which assist young mothers to complete high school are a good investment for society and are beneficial for both mother and child. More funding is needed to insure that all adolescent mothers who

wish to complete their high school education have access to programs which will help them attain their goals.

Although it may no longer be true that an adolescent who becomes pregnant "...has 90% of her life's script written for her..." (Cambell, 1968, p. 238), it is certainly true that her choices and life chances become severely curtailed (Furstenberg et al., 1989). The critical issue therefore is one of choice and equal opportunity. Few adolescents enter motherhood by choice and few are economically, educationally or psychologically prepared to deal with the burdens of parenthood, much less single parenthood. It is important that all adolescents have a choice about becoming pregnant and equal opportunity to pursue the educational and vocational training necessary to develop a satisfying life (Moore et al., 1981).

## Summary

Psychological, familial, cognitive and sociocultural factors all play a role in the etiology of teen pregnancy; however, no single cause can be isolated. Adolescent pregnancy is a complex, multi-determined phenomenon which must be viewed from both an individual and a sociocultural perspective. Early pregnancy and childbearing result in negative medical, developmental, economic and educational consequences which severely curtail the life choices and opportunities available to the adolescent mother and her child.

### CHAPTER III. RESEARCH DESIGN AND PROCEDURES

This chapter includes a description of the research sample, method of selection, the three assessment instruments and the statistical analyses that were performed.

#### Sample

The total number of subjects was 33. The demographic characteristics of the subjects were as follows:

1. All subjects were adolescent mothers. Only subjects who were currently mothers were included in the study.
2. The mothers ranged in age from 15 to 20. Each mother had only one child. Ages of the children ranged from 1 month to 4 years.
3. Thirty out of thirty-three subjects were Caucasian.
4. Twenty-nine of thirty-three subjects were unmarried.
5. Twenty-seven out of thirty-three subjects were low income according to Federal poverty guidelines. The majority of the sample received some form of Federal Welfare assistance such as Aid to Dependent Children, Food Stamps or Women's, Infant's and Children's Nutrition assistance.

6. Thirty-one of thirty-three subjects had not completed high school or obtained a GED; however, the majority were enrolled in a program to complete their high school requirements.

### Subject Selection

Subjects were recruited from several agencies and an alternative school program that worked with adolescent mothers in the state of Oregon. With the approval of each agency, individuals were asked to participate in a research project on adolescent mothers. Participation was strictly voluntary and was not tied to eligibility for services from the various agencies. Each subject received a statement explaining the general purposes and format of the study and a consent form.

### Assessment Instruments

Each subject completed three assessment instruments: The Reynolds Adolescent Depression Scale (RADs), The Offer Self-Image Questionnaire (OSIQ) and The Parenting Stress Index (PSI). The instruments were administered in a group setting at each agency.

### The Reynolds Adolescent Depression Scale

Purpose of the Instrument



The Reynolds Adolescent Depression Scale (RADS) is a self-report instrument designed to assess the number and intensity of depressive symptoms for adolescents, ages 13 through 18. However, the RADS may be used with adolescents who are outside this age range if they are in a school or agency setting (Reynolds, 1987). It is designed as a screening measure for clinical and school-based populations. Currently it is the only assessment instrument specifically designed to measure the depressive symptoms of adolescents. The RADS may be administered to individuals or groups and may be read aloud orally to reading disabled adolescents.

#### Description of the Instrument

The RADS consists of 30 items and utilizes a four-point Likert-type scale. Depressive symptoms associated with each of the 30-content items are listed below

(Reynolds, 1987):

- 1 Dysphoria
- 2 School anxiety
- 3 Loneliness
- 4 Devalued by parents
- 5 Self-worth
- 6 Social withdrawal
- 7 Sadness
- 8 Crying
- 9 Worthlessness
- 10 \*Anhedonia-peers
- 11 Somatic complaints
- 12 Low self-worth
- 13 Discouragement
- 14 Self-injurious
- 15 Self-esteem
- 16 Irritability
- 17 Pessimism

- 18 Fatigue
- 19 Self-reproach
- 20 Self-deprecation
- 21 Self-pity
- 22 Anger
- 23 Reduced speech
- 24 Sleep disturbance
- 25 \*Anhedonia-general
- 26 Worry
- 27 Somatic complaint
- 28 Loss of interest
- 29 Appetite disturbance
- 30 Helplessness

\* i.e. loss of enjoyment and interest in normal activities

### Psychometric Properties

Internal consistency reliability coefficients were uniformly high,  $>.909$ . Test-retest reliability based on intervals of six weeks, three months, and one year was respectively  $.80$ ,  $.79$  and  $.63$ . However, test-retest reliability coefficients are not expected to be as high because depressive symptoms and life circumstances change over time.

Content validity can be demonstrated based on the relationship of depressive symptoms in the RADS to those in other major systems of classification such as the DSM-III-R and other diagnostic criteria. Based on such comparisons, content validity appears to be strong. Concurrent validity between the Hamilton Rating Scale, another commonly used depression rating scale, and the RADS yielded a correlation of  $.83$  ( $p. \leq .001$ ).

### Norms

Norms are based on studies of over 10,000 adolescents and are available for both boys and girls and younger and

older adolescents. The separate norms for boys and girls are important because significant sex differences have been reported in depression (Reynolds, 1987).

#### Scoring

The RADS yields one total score. The higher the score, the higher the level of depressive symptoms. A cut-off score of 77 has been determined to distinguish those adolescents who should be referred for additional screening and treatment for depression. The mean for all adolescent females who have taken the RADS is 62.85 and the standard deviation is 14.66.

#### The Offer Self-Image Questionnaire

##### Purpose of the Instrument

The Offer Self-Image Questionnaire (OSIQ) is a self-report questionnaire which assesses the self-esteem, self-image and overall adjustment of adolescents. It has been administered to over 10,000 adolescents in a variety of clinical, school and community settings. The OSIQ has been described as ". . . the most promising measure of self-image currently emerging today." (Adams, 1985). The OSIQ is designed for group administration and can be completed in approximately 40 minutes.

##### Description of the Instrument

The OSIQ consists of 130 individual items and 12 content areas. Male and female forms of the questionnaire are

available. Adolescents are asked to respond to a six-item, Likert-type scale, ranging from "Describes me very well" to "Does not describe me at all.". The content areas are organized around five different aspects of the self, including the psychological, social, familial, sexual and coping self. A brief description of each item follows:

OSIQ1 Impulse Control-the degree to which the adolescent is able to tolerate frustration, delay gratification and control impulsive behavior.

OSIQ2 Emotional Tone-the degree of emotional control and stability and the extent to which the individual experiences emotional fluctuations.

OSIQ3 Body and Self-Image-the degree to which the adolescent has adjusted to and accepted his or her changing body.

OSIQ4 Social Relationships-a measure of the adolescent's ability to make and maintain friends and to feel empathy for others.

OSIQ5 Morals-the extent to which the adolescent has developed a moral self or super ego.

OSIQ6 Vocational-Educational Goals-the degree to which the adolescent is working effectively in establishing and meeting educational and vocational goals.

OSIQ7 Sexual Self-measures attitudes, feelings and behaviors towards the opposite sex.

OSIQ8 Familial Relationships-measures attitudes and feelings towards parents and the emotional atmosphere in the home.

OSIQ9 Mastery of the External World-the degree to which the adolescent successfully adapts to the immediate environment and is able to cope with stress and frustration.

OSIQ10 Emotional Health-the degree of emotional health or psychopathology.

OSIQ11 Superior Adjustment-a measure of overall coping and ego strength.

OSIQ12 Idealism-the degree to which the adolescent feels idealistic and altruistic about life.

#### Psychometric Properties

Content validity was established through the use of a review of the literature, a Q sort, a pilot study and a revision after initial testing. Internal consistency ranges from .40 to .88 with a mean alpha of .88. A test-retest reliability coefficient of .73 was reported over a six-month period. Concurrent validity studies with other personality measures such as the MMPI and the Tennessee Self-Concept Test are moderate to high.

#### Norms

Norms are based on studies of over 10,000 adolescents and are available for males and females ages 13 and up.

Norms are available for many special populations such as urban versus rural, older versus younger adolescents, adjusted versus maladjusted adolescents, and adolescents from other cultures.

### Scoring

The OSIQ yields 12 scores which pertain to the content areas described above. Raw scores are converted to standard scores according to age and sex norms. The mean standard score is 50 with a standard deviation of 15. High standard scores (above the mean of 50) correspond to high levels of adjustment and positive self-image whereas low scores indicate a poor adjustment and low self-esteem.

### The Parenting Stress Index

#### Purpose of the Instrument

The Parenting Stress Index (PSI) is a parental self-report instrument designed as a screening and diagnostic device to identify high levels of stress in the parent-child relationship which might lead to negative emotional, behavioral, and cognitive consequences. Thus, it is a screening and intervention tool for parent-child systems at risk for dysfunction and possibly abuse. The PSI may be administered in individual and group settings. It is designed to be understood by parents with a minimum fifth grade reading level.

## Description of the Instrument

The PSI consists of 120 items, arranged into two main content areas, the Parent Domain and the Child Domain. An optional Life Events Checklist is also available. Parents are asked to respond to the items by using a five point, Likert-type scale. If the parent has more than one child, he or she is asked to respond to the PSI while thinking about the child they are "most concerned". A brief description of each item follows:

PSI1, Total Stress-indicates the total amount of stress in the parent child relationship. The higher the score, the greater the risk for dysfunction.

PSI2, Child Characteristics Domain Total-total stress in parent/child relationship based on characteristics of child's functioning and behaviors.

PSI3, Child Adaptability/Plasticity-assesses the child's ability to adjust to changes in the physical or social environment.

PSI4, Acceptability of Child to Parent-assesses the degree to which the child's physical, intellectual, and emotional characteristics match the parent's expectations.

PSI5, Child Demandingness-assesses the degree to which the parent experiences the child as placing many demands on him or her.

PSI6, Child Mood-assesses the child's mood and affective functioning.

PSI7, Child Distractibility/Activity-assesses parent's perception of the child's level of activity and concentration.

PSI8, Child Reinforces Parent-assesses the degree to which the parent experiences the child as a source of positive reinforcement.

PSI9, Parent Characteristics Domain Total-total stress in the parent/child relationship related to characteristics of the parent's functioning.

PSI10, Parent Depression-assesses feelings of guilt, unhappiness, and depression.

PSI11, Parent Attachment-assesses degree of emotional closeness parent feels towards child and their ability to understand the child's feelings and needs.

PSI12, Restrictions Imposed by Parental Role-assesses degree to which parent experiences parental role as restricting freedom and frustrating their attempts to maintain their identity.

PSI13, Parent's Sense of Competence-assesses how competent the parent feels in fulfilling their parental responsibilities.

PSI14, Social Isolation-assesses how isolated the parent feels from peers, relatives, and other emotional support systems.



PSI15, Relationship with Spouse-assesses degree of closeness and active support in relationship with spouse or partner.

PSI16, Parental Health-assesses general health of the parent.

### Psychometric Properties

Content validity was established by conducting a review of the literature related to child development, parent-child interaction, attachment, child abuse and neglect, child psychopathology, child rearing and stress. Items on the PSI were selected through a Delphi process and 95 percent of the items selected was directly related to specific research findings. Concurrent validity was based on comparisons with other parent child assessment measures such as the child Behavior Problem Checklist, (.68), and the State-Trait Anxiety Scale, (.84, .71). Reliability coefficients for the Parent Domain were .93; for the Child Domain, .89 and .95 for the PSI total stress score. Test-retest reliability was reported as follows:

Table 1. PSI Test-Retest Reliability Coefficients

Interval	Parent Domain	Child Domain	Total Stress
3 Weeks	.70	.81	NA
1-3 Months	.91	.63	.96
3 Months	.69	.77	.88
1 Year	.70	.55	.65

## Norms

Norms are based primarily on information gathered from Caucasian, middle-class mothers, most of whom were high school graduates. Maternal age ranged from 18 through 61, with a mean age of 29.8 years. The norm group is not representative of the population at large and thus generalization of results to other socioeconomic and racial groups should be treated with caution. Thus one drawback of the PSI is that it was not specifically developed for use with or normed on adolescent mothers. However, the PSI appears to be the best instrument currently available for assessing stressors and problems within the parent-child system (McKinney & Peterson, 1986).

## Scoring

Raw scores for the domains and subscales are converted to percentile ranks which may then be compared to norms. Cutoff scores have been established which indicate high and potentially dangerous levels of stress between mother and child which may require professional intervention and assistance. The PSI yields 16 total scores including a total stress score, a child domain score, a parent domain score and the associated subscales.

### Hypotheses

This study tested the following null hypotheses:

Ho<sub>1</sub> There is no significant difference in depression between younger and older adolescent mothers as measured by the Reynolds Adolescent Depression Scale.

Ho<sub>2</sub> There is no significant difference in self-image between younger and older adolescent mothers as measured by the Offer Self-Image Questionnaire.

Ho<sub>3</sub> There is no significant difference in parenting stress between younger and older adolescent mothers as measured by the Parenting Stress Index.

### Statistical Analyses

A One-Way Analysis of Variance (ANOVA) fixed-model design was used to determine whether significant differences existed between groups of adolescent mothers. The Analysis of Variance utilizes the F test, a procedure to determine whether significant differences exist between means. For the purposes of this study, the alpha level was set at .05. The null hypotheses are rejected if the computed F value equals or exceeds the tabular value for F. The dependent variables were the scores derived from the assessment instruments.

Two analyses were performed (age by 2 and age by 3) to see whether differences existed based on how the age groups

were divided and compared. The distribution of subjects in each group is listed below. It should be noted that due to the small number of subjects in Group 2 in the Age by 3 Analysis, results should be treated with caution and may not generalize to other 17 year old mothers.

Table 2. Distribution of Subjects, Age by 2 Analysis

Group 1, age= $\leq$ 16 N=12	Group 2, age = $\geq$ 17 N=21
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Table 3. Distribution of Subjects, Age by 3 Analysis

Group 1, age= $\leq$ 16 N=12	Group 2, age=17 N=5	Group3 , age= $\geq$ 18 N=16
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The mathematical model for the one-way ANOVA, fixed design is  $Y_{ij} = M + G_i + E_{ij}$  where  $M$  is an unknown constant,  $G_i$  is the treatment (group effect) and  $E_{ij}$  is the residual (error) effect (Courtney, 1983).

Table 4. Analysis of Variance Layout (Fixed Model)

Source of Variation	df	SS	MS	F
Between	1	A	A/1	MS(Between)
Within(Error)	32	B	B/32	MS(Within)
Total	33	A + B	A/1 + B/32	

Fisher's Least Significant Difference Test, a multiple comparisons test, was employed to further differentiate between means in the Age by 3 Analysis. A Pearson Product-Moment Correlation Coefficient ( $r$ ) was also calculated to

test for significant linear relationships between the sets of data. A significant relationship exists when the computed  $r$  equals or exceeds the tabular value for  $r$ . The more closely  $R$  approaches 1, the greater the strength of the linear relationship. For this study the alpha level was set at .01 and the tabular value of  $r$  was .4487

## Summary

The sample for the study consisted of 33 adolescent mothers ranging in age from 15 to 20 years. All participants completed three self-report instruments: The Reynolds Adolescent Depression Scale, The Offer Self-Image Questionnaire and The Parenting Stress Index. An Analysis of Variance design utilizing the F test was used to test the three null hypotheses and to determine whether significant differences in depression, self-image and parenting stress existed among adolescent mothers as a function of age. A Fisher's LSD Test and a Pearson Product-Moment Correlation Test were also performed.

## CHAPTER IV. PRESENTATION AND ANALYSIS OF THE DATA

This chapter describes the statistical analyses done to test the hypotheses for this study. Tables that summarize the data for each hypothesis are included. A One Way Analysis of Variance which utilized the  $F$  statistic was used to test each hypothesis. A Multiple Comparisons test was performed as needed and correlations were also calculated.

Statistical Analysis:  $H_{01}$

$H_{01}$ : There is no significant difference in depression between younger and older adolescent mothers.

The Reynolds Adolescent Depression Scale (RADS) was administered to each subject to determine whether there was a significant difference in levels of depression between older and younger adolescent mothers. The cutoff score, mean and standard deviation for the entire population of female adolescents who have taken the RADS is listed below. The results of the Age by 2 Analysis appear on the left side of the table and the results of the Age by 3 Analysis appear on the right.

Table 5. RADS Summary of ANOVA Results

RADS Total Score

Cutoff Score= 77  $\bar{M}$ =62.85  $SD$ =12.49

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	67.25	.54	1.	67.25	.02 *
2.	64.42		2.	51.8	
			3.	68.38	

\* $p < .05$  \*\* $p < .01$ 

## Discussion

## Age by 2 Analysis, RADS

The age by 2 analysis revealed that  $F$  was not significant at the .05 level; thus  $H_{01}$  was retained.

## Age by 3 Analysis, RADS

The Age by 3 analysis revealed that  $F$  was significant at the .05 level ( $p < .02.$ ); thus  $H_{01}$  was rejected. The 17 year old mothers in Group 2 were significantly less depressed than the mothers in either of the other two groups. A Fisher's LSD Test revealed that there was a significant difference between Groups 1 and 2 and Groups 2 and 3. There was no significant difference between Groups 1 and 3.

There are several possible explanations for these differences. At a statistical level, the small number of 17 year olds in the analysis should be taken into account. Two out of five mothers in Group 2 scored exceptionally low, i.e. least depressed, on the RADS; in fact their scores were the lowest recorded among all the mothers. Thus the mean score for all the mothers in Group 2 would be affected by these two scores.



From a psychological point of view, the 17 year old mothers may also have been unwilling or unable to make an accurate report about their feelings of depression. In her study of adolescent mothers at risk (Salguero et al., 1980) found that younger mothers in the high risk category often did not display overt signs of depression but rather appeared unconcerned about their relationship with their child and denied any problems. This group was also the most resistant to help. In addition, (Spietz, 1988), has described a form of "masked maternal depression" in which high risk mothers reported that everything was "fine" when it clearly was not. Thus there is a possibility that the 17 year olds in this study were reporting a lower level of depression than they were actually experiencing.

#### Additional Findings

Although not significant, the mean score for all subjects in this study was 65.45, which is slightly higher than the mean score (62.85) for all adolescent females who have taken the RADS. The mean for the youngest mothers was even higher at 67.25. In addition, 21% of the total sample scored at or above the cutoff score of 77 which indicates the presence of severe depressive symptoms. This compares to a figure of 14% of all females who have taken the RADS and scored at or above the cutoff of 77. Thus the incidence of depression among all the adolescent mothers in this study and younger mothers in particular, is higher

than the incidence reported by other adolescent females who have taken the RADS and should be noted.

Statistical Analysis: Ho<sub>2</sub>

Ho<sub>2</sub>: There is no significant difference in self-image between younger and older adolescent mothers.

The Offer Self-Image Questionnaire (OSIQ) was administered to each subject to determine whether there was a significant difference in self-image between older and younger adolescent mothers. A score of 50 represents a score equal to the appropriate group reference mean and the standard deviation is 15. The results of the Age by 2 Analysis appear on the left side of the table and the results of the Age by 3 Analysis appear on the right.

Table 6. OSIQ Summary of ANOVA Results

OSIQ1 Impulse Control

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	46.99	.63	1.	46.99	.20
2.	49.521		2.	59.12	
			3.	46.52	

OSIQ2 Emotional Tone

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	43.49	.75	1.	43.49	.05 *
2.	41.85		2.	55.02	
			3.	37.74	

OSIQ3 Body Image

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	36.7	.70	1.	36.7	.06
2.	39.11		2.	54.19	
			3.	34.4	

## OSIQ4 Social Relationships

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	47.12	.14	1.	47.12	.001**
2.	38.29		2.	54.9	
			3.	33.09	

## OSIQ5 Morals

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	43.17	.07	1.	43.17	.10
2.	50.66		2.	55.72	
			3.	49.08	

## OSIQ6 Vocational/Educational Goals

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	39.95	.08	1.	39.95	.08
2.	48.49		2.	55.7	
			3.	46.24	

## OSIQ7 Sexual Attitudes

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	55.27	.44	1.	55.27	.62
2.	51.34		2.	54.7	
			3.	50.3	

## OSIQ8 Family Relationships

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	32.9	.17	1.	32.9	.10
2.	40.11		2.	49.42	
			3.	37.2	

## OSIQ9 Mastery

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	37.6	.04 *	1.	37.6	.092.
2.	47.55		2.	52.04	
			3.	46.15	

## OSIQ10 Emotional Health

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	38	.22	1.	38	.001**
2.	44.99		2.	61.9	
			3.	39.7	

## OSIQ11 Superior Adjustment

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	39.31	.29	1.	39.31	.08
2.	44.58		2.	54.7	
			3.	41.43	

OSIQ12		Idealism			
	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	42.81	.14	1.	42.8	.32
2.	49.44		2.	47.3	
			3.	50.1	

\*p<.05    \*\*p<.01

## Discussion

### Age by 2 Analysis, OSIQ

The Age by 2 analysis revealed that F was significant at the .05 level on OSIQ9. Since there was a significant difference in self-image between younger and older adolescent mothers based on this item,  $H_{02}$  was rejected.

OSIQ9, Mastery of the External World, measures the adolescent's ability to cope with the immediate environment. Low scores indicate poor frustration tolerance and an inability to visualize finishing a task while high scores indicate the ability to tolerate and cope with stress and frustration. The younger mothers felt significantly less confident in their abilities to cope with the world than older mothers, ( $p < .04$ ).

This is consistent with studies performed by Fine and Pape (1982), Salguero et al. (1980) and Bierman & Streett (1982) who found that the youngest adolescents tended to be the most impulsive and were least prepared to cope with the demands of raising a child.

### Age by 3 Analysis, OSIQ

The Age by 3 analysis revealed that F was significant at the .05 level on three items, OSIQ2, OSIQ4 and OSIQ10. Since there were significant differences in self-image

between younger and older adolescent mothers based on these 3 items,  $H_{02}$  was rejected. A Fisher's LSD Comparison Test was performed to further differentiate between means. The items that were significant are discussed below.

OSIQ2, Emotional Tone, relates to the psychological self and measures emotional tone, i.e. the degree of emotional harmony and stability within the individual. Low scores indicate emotional fluctuation (moodiness) while high scores indicate emotional stability. The oldest mothers, Group 3, reported the greatest degree of emotional fluctuation, ( $p < .05$ ), and their mean score exceeded one standard deviation. The 17 year olds in Group 2, reported the greatest degree of emotional stability. There was a significant difference between Groups 2 and 3. There was no significant difference between Groups 1 and 2 and Groups 1 and 3.

It is not clear why the oldest mothers in Group 3 reported the greatest degree of emotional fluctuation. However, it could be related to the next significant item, OSIQ4, which showed that the oldest mothers felt the most dissatisfied with their social relationships and were the most likely to feel isolated and tied down by the responsibilities of motherhood.

Older mothers may also be more aware of the harsh realities of adolescent parenthood than younger mothers who may still be caught up in the novelty of "playing house".

Initially, new mothers often experience an increase in attention and support from family, friends and social service agencies, (Bierman & Street, 1982) but this fades over time leaving many mothers feeling isolated and overburdened by the challenges of parenthood.

OSIQ4, Social Relationships, relates to the social self; a low score indicates that the adolescent has difficulty in developing relationships with others and may be lonely and isolated while a high score indicates the ability to form good relationships with others and satisfaction with one's social life. OSIQ4, ( $p < .001$ ), was significant at both the .05 and .01 level. The oldest mothers in Group 3 felt the most socially isolated and their mean score also exceeded one standard deviation. The mothers in Group 2, the 17 year olds, felt least isolated. A Fisher's LSD Test revealed that there was a significant difference between Groups 1 and 3 and Groups 2 and 3. There was no significant difference between Groups 1 and 2.

The anecdotal data in our study strongly supports this finding that older mothers feel more lonely, tied down and dissatisfied with their social relationships. All subjects were asked "What is the hardest part about being a young parent?" In response, over 75% of the oldest mothers in Group 3 reported feeling isolated or tied down. Some typical responses were "Giving up your freedom.", "Not being able to do the same things as other kids my age." and "Not

being able to go out whenever I want." In contrast, the younger mothers in Group 1 felt the hardest part about being a young parent was dealing with the day to day challenges of caring for a baby such as getting up during the night or caring for a sick or crying baby.

OSIQ10, Emotional Health/Psychopathology, relates to the coping self and measures emotional health. A low score indicates poor emotional health and the potential for clinical psychopathology whereas a high score indicates good emotional health and an absence of depressive symptoms. OSIQ10 was significant at both the .05 and .01 level. The youngest mothers in Group 1 had the lowest level of emotional health, followed by the oldest mothers in Group 3. The 17 year old mothers in Group 2, scored highest in terms of emotional health. A Fisher's LSD revealed that there was a significant difference between Groups 1 and 2 and 2 and 3. There was no significant difference between Groups 1 and 3.

Numerous studies support the notion that very young adolescent mothers are the most vulnerable to depression due to a lack of emotional and cognitive maturity and coping skills (Hatcher, 1973; Salguero et al., 1980). In addition, the youngest mothers in this study had the highest mean score on the RADS and thus they were the most depressed (although not at a statistically significant level). It is difficult to say whether the mid-adolescent

mothers in our study were as emotionally healthy as they reported themselves to be or whether they were masking real problems behind a cloak of denial (Spietz, 1988; Salguero et al., 1980).

#### Additional Findings

The standard deviations for the OSIQ also revealed some additional information. Younger mothers scored in excess of one standard deviation below the mean on OSIQ8, Family Relationships. On three other items, OSIQ3, Body Image, OSIQ9, Mastery and OSIQ10, Emotional Health, they scored very close to one standard deviation below the mean.

The older mothers also scored very close to one standard deviation below the mean on OSIQ8, Family Relationships and OSIQ3, Body Image. However, in contrast to the younger mothers, they scored in excess of one standard deviation below the mean on OSIQ4, Social Relationships, an item which was also significant in the Analysis of Variance.

Thus the adolescent mothers in this study, regardless of age, reported a more negative body image and poorer family relationships than other adolescents who have taken the OSIQ. Both these factors have been associated with low self-esteem. For girls, a negative body image is often closely linked to low self-esteem (Petersen, 1987). Family problems also appear to have a significant impact on the mental health of adolescents. Adolescents with family



mental health of adolescents. Adolescents with family problems appear to be more vulnerable to depression and tend to be more depressed than adolescents who attribute their depression to other factors (Reynolds, In Press).

Statistical Analysis: Ho<sub>3</sub>

Ho<sub>3</sub>: There is no significant difference in parenting stress between younger and older adolescent mothers.

The Parenting Stress Index was administered to each subject to determine whether there were was a significant difference in levels of parenting stress between older and younger adolescent mothers. The cutoff score, means and standard deviation for the entire population of parents who have taken the PSI are included for each item. The results of the Age by 2 Analysis appear on the left side of the table and the results of the Age by 3 Analysis appear on the right.

Table 7. PSI Summary of ANOVA Results

PSI1 Total Stress Score

Cutoff Score=260 M=221.1 SD=38.9

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	260	.31	1.	260	.22
2.	244.71		2.	222.2	
			3.	251.8	

PSI2 Child Characteristics Domain Total

Cutoff Score=122 M=98.4 SD=19.2

	<u>M</u>	<u>p</u>		<u>M</u>	<u>p</u>
1.	116.42	.31	1.	116.4	.63
2.	111.86		2.	105	
			3.	114	

PSI3 Child Adaptability/Plasticity  
Cutoff Score=31  $\bar{M}$ =24.5  $\underline{SD}$ =5.7

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	28.25	.84	1.	28.25	.76
2.	27.76		2.	25.8	
			3.	28.4	

PSI4 Acceptability Child to Parent  
Cutoff Score=17  $\bar{M}$ =12.5  $\underline{SD}$ =3.6

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	16.41	.12	1.	16.42	.25
2.	13.57		2.	12.4	
			3.	13.94	

PSI5 Child Demandingness/Bother  
Cutoff Score=24  $\bar{M}$ =18.1  $\underline{SD}$ =4.6

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	23.08	.11	1.	23.08	.18
2.	20.19		2.	18.4	
			3.	20.75	

PSI6 Child Mood  
Cutoff Score=13  $\bar{M}$ =9.6  $\underline{SD}$ =2.9

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	10.66	.75	1.	10.66	.86
2.	10.24		2.	9.6	
			3.	10.44	

PSI7 Child Distractibility/Hyperactivity  
Cutoff Score=31  $\bar{M}$ =24.4  $\underline{SD}$ =5.0

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	26.42	.16	1.	26.42	.34
2.	28.43		2.	29.2	
			3.	28.19	

PSI8 Child Reinforces Parent  
Cutoff Score=12  $\bar{M}$ =9.3  $\underline{SD}$ =2.9

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	12.25	.11	1.	12.25	.24
2.	10.38		2.	9.6	
			3.	10.63	

PSI9 Parent Characteristics Domain Total  
Cutoff Score=153  $\bar{M}$ =122.7  $\underline{SD}$ =24.6

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	143.58	.20	1.	143.58	.10
2.	132.62		2.	117.2	
			3.	137.44	

## PSI10 Parent Depression

Cutoff Score=27  $\bar{M}$ =20.4  $\underline{SD}$ =5.6

Age by 2

Age by 3

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	23.42	.11	1.	23.42	.12
2.	20.52		2.	18	
			3.	21.31	

## PSI11 Parent Attachment

Cutoff Score=16  $\bar{M}$ =12.6  $\underline{SD}$ =3.1

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	17.25	.01 **	1.	17.25	.03 *
2.	12.52		2.	11	
			3.	13	

## PSI12 Restriction of Role

Cutoff Score=26  $\bar{M}$ =19.0  $\underline{SD}$ =5.2

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	20.17	.57	1.	20.17	.71
2.	21.29		2.	20	
			3.	21.68	

## PSI13 Competence

Cutoff Score=37  $\bar{M}$ =29.2  $\underline{SD}$ =6.3

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	36.17	.02 *	1.	36.17	.03 *
2.	30.76		2.	27.2	
			3.	31.88	

## PSI14 Isolation

Cutoff Score=18  $\bar{M}$ =12.8  $\underline{SD}$ =3.8

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	14.42	.90	1.	14.42	.32
2.	14.24		2.	11.8	
			3.	15	

## PSI15 Relationship to Spouse/Partner

Cutoff Score=23  $\bar{M}$ =16.8  $\underline{SD}$ =5.1

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	19.5	.75	1.	19.5	.78
2.	18.9		2.	17.6	
			3.	19.31	

## PSI 16 Parental Health

Cutoff Score=16  $\bar{M}$ =11.9  $\underline{SD}$ =3.3

	$\bar{M}$	$p$		$\bar{M}$	$p$
1.	13.5		1.	13.5	.11
2.	14.4		2.	11.6	
			3.	15.25	

\* $p$  < .05 \*\* $p$  < .01

## Discussion

### Age by 2 Analysis, PSI

The age by 2 analysis revealed that  $F$  was significant at the .05 level on 2 items, PSI11 and PSI13. Since there were significant differences in parenting stress between younger and older mothers based on these 2 items,  $H_{03}$  was rejected. The 2 items which were significant are discussed below.

#### PSI11, Parental Attachment

Younger mothers, ages 17 and under, felt significantly less attached, ( $p < .001$ ), to their children than older mothers. The mean score for the younger mothers, 17.25, also exceeded the cutoff score of 16. This indicates that the younger mothers were experiencing greater difficulty in relating and bonding to their children. The emotional and cognitive immaturity of very young adolescent mothers may impair their abilities to perceive and respond to the child's cues and may lead to dysfunctional parenting (Elster et al., 1983; Bierman & Streett, 1982).

#### PSI13, Parental Competence

Younger mothers, ages 17 and under, felt significantly less competent ( $p < .02$ ) than older mothers. Not only did a review of the literature support this finding, the anecdotal data in this study does as well. The younger mothers reported feeling frustrated and unsure about how to deal

with crying, teething, illness, discipline and the day to day problems of raising a child. One young mother commented that "The hardest part is when the baby cries and cries and you do everything you can but it doesn't work." In contrast, older mothers rarely mentioned these concerns.

#### Age by 3 Analysis, PSI

The Age by 3 analysis revealed that  $F$  was significant on the same 2 items, PSI11 and PSI13. Since there were significant differences in parenting stress on these 2 items,  $H_{03}$  was rejected. A Fisher's LSD Test was also performed. The two items which were significant are discussed below.

PSI11 measures parental attachment as described above. The youngest mothers in Group 1 felt least attached, whereas the mothers in Group 2, the 17 year olds, felt most attached. According to the LSD test, there was a significant difference between Groups 1 and 2 and Groups 1 and 3. There was not a significant difference between Groups 2 and 3.

PSI13 measures parental competence as described above. The youngest mothers in Group 1 felt least competent, whereas the mothers in Group 2, the 17 year olds, felt most competent. An LSD Test showed that there was a significant difference between Groups 1 and 2 but no significant difference between Groups 1 and 3 or Groups 2 and 3.

In Chapter Two, many factors were reviewed which could account for this finding. It is not surprising that the youngest mothers felt least competent and least attached to their children. However it is less clear why the 17 year olds in our study reported feeling more attached and more competent than the oldest mothers. It could be that the 17 year olds in Group 2 did in fact enjoy a strong sense of attachment to their children and were unusually competent and mature. However, an alternate explanation could be that these particular 17 year olds may have had an unrealistic view of their competence as parents and tended to minimize or deny problems in the parent-child system (Salguero et al., 1980; Spietz, 1988).

#### Additional Findings

In the Age by 2 Analysis, the mean scores of the younger mothers were higher although not significant on 13 out of 16 items. They scored at or above the cutoff score on 3 items: PSI1, Total Stress, PSI8, Child Reinforces Parent and PSI11, Attachment. They also scored in excess of one standard deviation from the mean on 6 items listed below; however, only two of these items, PSI11 and 13 were significant in the Analysis of Variance.

**PSI1 Total Stress**

A high level of stress indicates a parent child system in which there is a high risk for problems, dysfunction and abuse.

**PSI4 Acceptability Child to Parent**

A high score indicates that the child does not meet the parent's expectations.

**PSI5 Child Demandingness**

A high score indicates that the parent experiences the child as excessively demanding and as a source of stress.

**PSI8 Child Reinforces Parent**

A high score indicates that the parent does not experience the child as a source of positive reinforcement but rather may experience negative feelings of resentment and rejection.

**PSI11 Parental Attachment**

A high score indicates the absence of a close bond between mother and child.

**PSI13 Parental Competence**

A high score indicates that the parent lacks an adequate knowledge of child development and parenting skills.

### Correlations

A Pearson Product-Moment Correlation Coefficient ( $r$ ) was calculated to determine whether significant relationships existed between the sets of data. The alpha level was set at .01 and  $r=.4487$ . When the computed  $r$  exceeded the tabular  $r$ , then it was determined that a significant relationship existed. A total of 20 significant correlations was found among the three instruments. Most were negative but 4 were positive. Correlations were also run within measures but were not deemed relevant to this study as the internal consistency and validity of the instruments was not in question. The correlation coefficients between measures appear below followed by a discussion of the significant relationships.

Table 8. RADS/OSIQ Correlations

	$r$
OSIQ1	-.52**
OSIQ2	-.75**
OSIQ3	-.71**
OSIQ4	-.45**
OSIQ5	-.24
OSIQ6	-.11
OSIQ7	-.23
OSIQ8	-.50**
OSIQ9	-.45**
OSIQ10	-.74**
OSIQ11	-.30
OSIQ12	.28



Table 9. RADS/PSI Correlations

	r
PSI1	.42
PSI2	.24
PSI3	.15
PSI4	.31
PSI5	.41
PSI6	.20
PSI7	-.04
PSI8	.10
PSI9	.50**
PSI10	.46**
PSI11	.29
PSI12	.43
PSI13	.38
PSI14	.30
PSI15	.01
PSI16	.61**

Table 10. OSIQ/PSI Correlations

	OSIQ1	OSIQ2	OSIQ3	OSIQ4	OSIQ5	OSIQ6
PSI1	-.38	-.44	-.32	-.35	-.16	-.06
PSI2	-.36	-.26	-.18.	-.22	-.11	.06
PSI3	-.49**	-.30	-.19.	-.26	-.16	-.09
PSI4	-.30	-.31	-.17.	-.27	-.09	-.14
PSI5	-.34	-.34	-.39	-.21	-.23	-.06
PSI6	-.21	-.33	-.21	-.31	-.08	-.03
PSI7	.001	-.01	.05.	-.11	-.10	.19
PSI8	-.10	-.18	.01	-.11	.12	.09
PSI9	-.33	-.51**	-.38	-.39	-.17	-.17
PSI10	-.24	-.42	-.22	-.27	-.09	-.06
PSI11	-.14	-.34	-.22	-.18	-.03	-.18
PSI12	-.03	-.44	-.25	-.29	-.21	.28
PSI13	-.33	-.30	-.16	-.24	-.06	-.18
PSI14	-.19	-.46**	-.26	-.44	-.15	-.15
PSI15	.01	-.04	-.20	-.08	-.13	-.21
PSI16	-.72**	-.50*	-.72**	-.36	-.11	-.29

Table 10. continued

	OSIQ7	OSIQ8	OSIQ9	OSIQ10	OSIQ11	OSIQ12
PSI1	-.05	-.36	-.26	-.44	-.27	.01
PSI2	.01	-.22	-.01	-.21	-.24	-.09
PSI3	.04	-.20	-.04	-.13	-.43	-.05
PSI4	-.04	-.27	-.19	-.32	-.16	-.09
PSI5	.02	-.32	-.16	-.42	-.20	-.08
PSI6	-.17	-.22	.01	-.27	-.23	-.08
PSI7	.28	.12	.32	.06	-.03	-.06
PSI8	-.20	-.20	-.27	-.22	.05	-.01
PSI9	-.11	-.41	-.44	-.55**	-.25	.12
PSI10	-.08	-.22	-.41	-.36	-.13	.06
PSI11	-.17	-.32	-.36	-.42	-.20	.01
PSI12	-.05	-.15	-.11	-.25	-.06	.05
PSI13	.01	-.43	-.40	-.41	-.30	-.07
PSI14	-.14	-.33	-.20	-.53**	-.09	.17
PSI15	.01	-.08	-.15	-.18	.03	.14
PSI16	-.07	-.52**	-.49**	-.60**	-.44	.39

\*\*  $p < .01$

## Discussion

### RADS/OSIQ Correlations

The RADS, i.e. depression, was negatively correlated with OSIQ1, Impulse Control, OSIQ2, Emotional Tone, OSIQ3, Body Image, OSIQ4, Social Relationships, OSIQ8, Family Relationships, OSIQ9, Mastery, and OSIQ10, Emotional Health. Thus, a high level of depression was correlated with poor impulse control, moodiness, poor social relationships and isolation, poor family relationships, poor coping skills and poor emotional health.

### RADS/PSI Correlations

There were positive correlations between depression and PSI9, Parent Characteristics Total, PSI10, Parental Depression and PSI16, Health. Thus the adolescent mothers who were most likely to be depressed were also the mostly highly stressed and were experiencing health problems of their own.

### PSI/OSIQ Correlations

In discussing the correlations between these two instruments, it should be noted that a high numerical score on the PSI indicates a poor level of adjustment whereas a high score on the OSIQ indicates a good level of adjustment.

OSIQ1, Impulse Control, was negatively correlated with PSI3, Child Adaptability and PSI16, Parental Health. Thus poor impulse control was associated with poor maternal health and poor adaptability on the part of the child.

OSIQ2, Emotional Tone, was negatively correlated with PSI9, Parent Characteristics Total and PSI14, Isolation; the more isolated the mother was, the more likely she was to be moody and lack emotional stability.

OSIQ3, Body Image, was negatively correlated with PSI16, Parental Health; the more health problems the mother was experiencing, the more likely she was to have a poor body image.

OSIQ4, Social Relationships was negatively correlated with PSI1, Total Stress, PSI9, Parent Characteristics Total and PSI16, Parental Health. Thus, isolation was associated with a high level of stress and poor maternal health.

There were no correlations between OSIQ4, 5, 6 or 7 (Social Relationships, Morals, Vocational/Educational Goals, Sexual Attitudes) and the PSI.

OSIQ8, Family Relationships and OSIQ9, Mastery, were negatively correlated with PSI16, Health. Therefore, poor family relationships and poor coping skills were associated with poor maternal health.

OSIQ10, Emotional Health, was negatively correlated with PSI9, Parent Characteristics Total, PSI14, Isolation and PSI16, Parental Health. Thus, the mothers who were least emotionally healthy were also the most isolated and the least physically healthy.

There were no correlations between OSIQ11, Superior Adjustment and OSIQ12, Idealism with the PSI.

## Summary

The statistical analyses revealed that some differences in depression, self-image and parenting stress do exist between younger and older adolescent mothers. In the Age by 2 Analysis,  $H_{01}$  was retained; there was no significant difference in depression between younger and older adolescent mothers.  $H_{02}$  was rejected; younger mothers were significantly less confident in their abilities to cope with the world and experienced more stress and frustration than older mothers.  $H_{03}$  was also rejected; younger mothers experienced more parental stress. Specifically they felt less attached to their children and less competent as parents than older mothers.

In the Age by 3 Analysis, all three hypotheses were rejected. The mid-adolescent mothers in Group 2 were significantly less depressed than the mothers in the other two groups; thus  $H_{01}$  was rejected.  $H_{02}$  was also rejected based on differences in self-image. The oldest mothers in Group 3 experienced significantly more emotional fluctuation (moodiness) than the mothers in Group 2; they were also significantly more dissatisfied with their social relationships and felt more isolated and tied down than the mothers in the other two groups. The youngest mothers scored lowest in terms of emotional health and were most at risk for emotional and psychological problems whereas the mid-ado-

lescent mothers were significantly more emotionally healthy than the mothers in the other two groups. The younger mothers also were less able to master and cope with daily life and experienced more stress and frustration.  $H_{03}$  was rejected; the same differences in parenting stress that were found in the Age by 2 Analysis emerged in the Age by 3 Analysis. The youngest mothers in Group 1 were significantly less attached to their children than the mothers in the other groups and significantly less competent (as parents) than the mothers in Group 2.

An overview of means, cutoff scores and standard deviations provided additional information. Over 21% of the sample reported clinical levels of depression, which is considerably higher than the incidence among other adolescent females (14%) who have taken the RADS. In terms of self-image, the adolescent mothers in this sample reported a more negative body image and poorer relationships with their families than other adolescent females who have taken the OSIQ. In comparison to other mothers who have taken the PSI, the youngest mothers were more stressed but less attached and competent with their children. They also experienced their children as more demanding and experienced more feelings of resentment and rejection towards them.

The correlations confirmed that there were significant relationships between depression, self-image and parental stress. Depression was significantly related to

parental competence, the degree to which the parent experienced the child as demanding and difficult, the degree to which the mother felt isolated and restricted by her role as a parent and the mother's own state of physical health. Impulsiveness, body image, isolation, mastery and emotional health were significantly related to parental health.

## CHAPTER V. SYNOPSIS, CONCLUSIONS AND RECOMMENDATIONS

This chapter includes a synopsis of the study, conclusions based on the statistical analyses described in Chapter IV, and recommendations for research and practical application.

### Synopsis

The purpose of this study was to determine whether there were significant differences between younger and older adolescent mothers. Most studies of adolescent mothers treat the subjects as if they belong to one homogeneous group and do not distinguish between different age groups. Specifically, this study measured differences in depression, ( $H_{01}$ ), self-image, ( $H_{02}$ ), and parental stress, ( $H_{03}$ ), between younger and older adolescent mothers. A review of the literature on these three subjects suggested that younger mothers would be more vulnerable to depression, stress and a negative self-image.

Subjects consisted of 33 adolescent mothers ranging in age from 15-20 years. Each subject completed the Reynolds Adolescent Depression Scale, the Offer Self-Image Questionnaire and the Parenting Stress Index. Statistical analyses included a One Way Analysis of Variance which was performed twice, (Age by 2 and Age by 3) and a Fischer's Least Signi-



ficant Difference Test as needed. Pearson Product-Moment Correlation coefficients were also calculated to see whether significant relationships existed among depression, self-image and parental stress.

### Major Conclusions and Recommendations

#### Adolescent Mothers More Depressed

The incidence of serious depression (21%) was found to be fairly high among subjects in this study in comparison to other female adolescents (14%) who have taken the RADS. Recommendation

This study suggests that the incidence of depression among adolescent mothers may be underestimated and that there is a need to develop both a screening program and a treatment component. Early screening and intervention can help prevent and curtail the development of serious difficulties in the parent-child relationship. If the depression is not treated it can seriously impair the mother's ability to care for herself and her child and can negatively effect functioning in all other areas of life (Spietz, 1988). If a parent is experiencing serious depression, the depression must be treated first before other intervention strategies can be effective.

The RADS is an good instrument for screening for depression because it is brief, inexpensive and designed for

easy group administration and manual scoring in a school or agency setting. Some schools are already utilizing the RADS and have found it to be a time and cost effective method for identifying students who are at risk. Adolescents who score at or above the cutoff point should be referred for further evaluation and treatment if needed. In those cases where antidepressants may be necessary, it would be desirable to have access to a psychiatrist within the school system or community mental health program who could prescribe the medication.

Depression is one factor that has been associated with adolescent pregnancy (Coddington, 1979; Abernethy et al., 1975; Barglow, 1968; Greenberg et al. 1959; Swigger, 1977; Gottschalk, 1964; Heiman & Levitt, 1960). Adolescents who are depressed have impaired judgement skills and are more at risk for engaging in behaviors which may have harmful consequences. An unplanned pregnancy may be one such consequence. Thus screening adolescents for depression may also help identify those students who are at most at risk for an unintended pregnancy.

#### Mid-Adolescent Mothers Least Depressed

There was a significant difference in depression in the Age by 3 Analysis; the mothers in Group 2, the 17 year olds, reported feeling significantly less depressed than the mothers in either of the other 2 groups.

### Recommendation

Since the number of mothers in Group 2 was small, it would be premature to generalize that other mid-adolescent mothers are less depressed than younger or older mothers. At this time it is unclear whether the mid-adolescent mothers in our sample were genuinely less depressed or whether their responses indicate a masked depression. More research with a larger sample size is needed to confirm these preliminary findings.

### Younger Mothers Most at Risk for Psychological Problems

The youngest mothers scored significantly lower in terms of emotional health and were most at risk for psychological and emotional problems.

### Recommendation

Since younger mothers appear to be at the greatest risk for emotional problems, they are also the age group that is most in need of screening, counseling and psychological services. Group counseling can help limit treatment costs but individual counseling should also be available as needed. Counselors should be on the alert for mental health issues which are common among women and adolescents such as depression, sexual abuse, domestic violence, eating disorders and substance abuse. In large urban areas, crack addiction is becoming an increasing problem among many teen parents.

### Younger Mothers Least Able to Cope

The youngest mothers felt significantly less able to master and cope with the challenges of daily life and motherhood and were more likely to experience stress and frustration than older mothers.

#### Recommendation

Self-efficacy and self-esteem are directly related to an individual's sense of mastery and ability to cope with a given situation. (Bandura, 1971). The lower an individual's sense of mastery, the lower their expectations and sense of self-esteem. However, adolescent mothers with high levels of self-esteem are better able to cope with stress (Elster et al., 1983). Thus, it is important to provide adolescent mothers with instruction in parenting and coping skills which will increase their sense of mastery and self-esteem.

### Self-Image Linked to Poor Family Relationships

Regardless of age, the adolescent mothers in this study indicated that their relationships with their parents were especially difficult and troubled in comparison to other adolescents who have taken the OSIQ. Younger mothers reported the most difficulty in relating to their parents, scoring in excess of one standard deviation below the mean.

Family relationships comprise one important component of the adolescent's self-image and self-esteem (Offer et al., 1982). Family problems appear to have a significant impact on the mental health of adolescents. Adolescents with family problems appear to be more vulnerable to depression and tend to be more depressed than adolescents who attribute their depression to other factors (Reynolds, In Press). Low self-esteem and depression can have a negative impact on the mother's ability to provide adequate care for her child (Spietz, 1988).

Although adolescence is normally characterized by some degree of conflict and communication problems between teenagers and parents, premature pregnancy compounds the naturally occurring problems of this developmental stage. Adolescent mothers often find themselves becoming more dependent on their parents for shelter, money, child care and other forms of support at the very time when they are experiencing their greatest psychological need to separate from their parents. The problem seems to be slightly greater for the youngest adolescent mothers because they are more likely to actually live with their parents. Particularly in these situations, there is a greater potential for conflict.

#### Recommendation

This study indicates that adolescent mothers and their families have a special need for counseling which addresses

family relationships and the conflict that arises between dependency needs and the adolescent's need to separate from the parents. Grant funding should be made available to encourage the development of a model program component which would address these needs. This could include individual, group or family counseling sessions. Most existing programs treat adolescent pregnancy as an individual rather than a family issue and rarely involve family members in treatment. However, a program which encourages the active participation of family members could help improve relationships and reduce stress and conflict between the adolescent mother and her parents. An adolescent mother who feels better about her family relationships is more likely to feel better about herself and her ability to care for her child.

#### Negative Body and Self-Image

Regardless of age, the adolescent mothers in this study reported having a more negative body-image in comparison to other adolescent females who have taken the OSIQ. Body-image is one important component of adolescent self-image (Offer, 1982). For girls, body-image is closely linked to self-image and self-esteem; a negative body image is associated with a poor self-image and low self-esteem (Petersen, 1987). A premature pregnancy means that the

adolescent must adapt to the enormous physical changes associated with puberty and pregnancy at the same time.

#### Recommendation

Pregnant and parenting teenagers need counseling and education to help them cope with the overwhelming physical changes that they are experiencing. Education could focus on providing information about the physical changes that are a normal part of adolescence and pregnancy as well as information about self care, sexuality, nutrition, diet and exercise. Individual or group counseling could provide a safe place for adolescent mothers to express and explore their feelings about their changing bodies and, in time, to develop a more positive body image.

#### Older Mothers Most Isolated

Although older mothers reported higher levels of self-esteem and greater confidence in their ability to cope with the challenges of being a parent, they reported feeling more lonely and isolated and were more dissatisfied with their social life than younger mothers. Older mothers were also more moody, perhaps as a result of their dissatisfaction and isolation.

#### Recommendation

This study indicates that older adolescent mothers have a greater need for social relationships and are most in need of programs which will help reduce the isolation

and loneliness they are experiencing. Since older mothers are more likely to be living on their own, it is not surprising that they may experience more isolation and less support.

Developmentally, older mothers may also have a greater need for a normal social life than younger mothers. Older adolescent mothers are at an age where it is critical that they complete the major developmental tasks of adolescence which may have been neglected earlier. These tasks include developing satisfying social relationships, forming educational and vocational plans and establishing an identity and a set of personal values (Havighurst, 1951; Erickson, 1963, 1969). Premature pregnancy often disrupts the normal adolescent developmental process causing adolescent mothers to miss out on important developmental experiences such as friendship and dating.

Support groups are the single best means of reducing isolation and helping participants develop friendships. Discussion groups, classes and counseling should also focus on helping older adolescent mothers complete the major developmental tasks of adolescence, i.e. defining a personal identity and a sense of direction for the future. Counselors and teachers may wish to use a workbook, Choices: A Teen Woman's Journal for Self Awareness and Personal Planning (Bingham et al., 1983), which provides an excellent guide for helping young women move towards adulthood. Ado-



lescent mothers may also need reassurance that it is all right for them to focus on their own needs and to develop a life of their own apart from their child since family members sometimes oppose these ideas and condemn the young mother as selfish.

Specific training in communication skills, including assertiveness, would also help participants to develop more satisfying personal relationships with friends, parents and partners. In addition, career counseling and life planning should be emphasized for older adolescents and they should be encouraged to develop an individual plan for their future.

Many programs for teen parents conduct groups with the children present in the same room due to a lack of adequate daycare resources. However it is recommended that this be avoided unless the group is specifically designed to focus on infant development or parenting skills. When children are present, the mother is preoccupied with the baby and is unable to focus on personal development issues.

#### Younger Mothers More Stressed, Less Competent

Overall, younger mothers were more stressed and significantly less competent than older mothers. They lacked an adequate knowledge of child development and parenting skills. This is a particularly strong finding since this item was significant in both analyses.

### Recommendation

If a young mother feels inadequate or overwhelmed, there is a greater potential that problems will develop in the mother-child relationship; therefore early intervention is important. The Parenting Stress Index is an effective screening tool for identifying high levels of stress in the parent-child relationship which may lead to dysfunctional parenting.

Younger mothers have a greater need for practical information about infant development and parenting skills which will help them feel more competent about their own abilities and develop a positive and nurturing relationship with their children. As mothers feel more competent about their parenting skills, they also feel more competent in other areas of their lives. They are more likely to achieve their educational or vocational goals and to plan and limit the size of their family (Badger, 1981).

Instructional approaches should be based on a developmental understanding of the young adolescent. Young adolescents have not yet attained full cognitive maturity and the stage of Formal Operational Thinking which permits the capacity for abstract thinking (Coblner, 1974). Therefore, an instructional approach that utilizes practical, behavioral techniques such as modeling, rehearsal and role playing will be more successful in teaching parenting skills to young adolescent mothers rather than traditional

instructional techniques which emphasize theory. Several programs have successfully used both modeling and videotaping to teach mothers how to interact and play with their children in a more positive manner (Hayes, 1987).

#### Younger Mothers Less Attached

Younger mothers were significantly less attached to their children than older mothers. This is a particularly strong finding since this item was significant in both analyses.

#### Recommendation

This finding re-emphasizes that younger adolescent mothers need special assistance to develop a healthy, nurturing relationship with their children. In keeping with their level of cognitive development, they will benefit most from having good parenting skills modeled followed by an opportunity to practice the new behavior themselves. Adolescent mothers typically need help in learning to talk and play with their children, establishing healthy and regular feeding schedules and using appropriate discipline and limit setting (Bierman & Streett, 1982).

#### Additional Recommendations For Research

1. In general this research should be replicated with a larger sample to see if similar differences in depression, self-image and stress emerge between younger and

older mothers. More research should also be directed at finding whether additional developmental differences exist between adolescent mothers.

2. The research should also be replicated with adolescent mothers from a diversity of ethnic backgrounds since most of the subjects in this sample were Caucasian.

3. Although this study did find some significant differences between the mid-adolescent mothers in Group 2 and the mothers in the other two age groups, the results were not conclusive because of the small number of mid-adolescent mothers in the sample. Therefore more research with greater numbers of 17 year olds is needed to see whether the results of this study can be generalized to other mid-adolescent mothers.

4. More research on treatment outcome is also needed. Adolescent mothers who are screened and receive treatment for stress and depression could be compared with mothers who do not receive treatment. It is important to know whether treatment is effective for program and policy planning.

5. Since this study found that adolescent mothers had unusually negative body images, it could be hypothesized that they might be more vulnerable to developing an eating disorder. More research is necessary to verify this hypothesis.

## Summary

This study demonstrates that emotional and psychological differences do exist between younger and older adolescent mothers. Younger mothers are most at risk for developing emotional and psychological problems and most at risk for dysfunctional parenting. They are most in need of counseling and education to help them develop better coping and parenting skills and improve their self-image and self-esteem.

Older mothers are significantly more psychologically resilient and more competent as parents but more moody and more likely to feel isolated and tied down by the responsibilities of parenthood. They are more in need of assistance to help overcome loneliness and social isolation, define a sense of personal identity, develop goals for the future and otherwise complete the developmental tasks of adolescence. All adolescent parents in this study, regardless of age, reported higher levels of depression, a more negative body-image and more troubled family relationships in comparison to other female adolescents in their age group.

Thus, this study indicates that there is a need to screen for psychological problems and a need to provide adequate counseling services for adolescent parents. At a minimum, adolescent parents should be screened for depres-

sion and parental stress. Early screening and treatment can help prevent the development of more serious problems in the parent-child relationship which may require more extensive and costly treatment if they are not recognized and dealt with at an early stage. Individual or group screening can be performed easily and inexpensively by utilizing the Reynolds Adolescent Depression Scale and the Parenting Stress Index.

The treatment component should include access to counseling services as well as education designed to improve the mother's knowledge of child development and help her develop good parenting skills. In addition, new treatment components such as a family counseling program, may need to be developed in response to needs identified in this study. Treatment costs can be controlled through the use of group rather than individual counseling whenever possible.

Most existing programs that serve adolescent mothers are primarily dedicated to serving the medical, educational and economic needs of adolescent parents and address psychological needs only incidentally or in response to crisis. Thus, too often the psychological needs of adolescent mothers are overlooked and inadequately served. Part of the problem can be attributed to The National Adolescent Mother, Infant and Child Health Act of 1978 which prescribed ten core services which must be a part of every program that receives federal funding. However these ten core

services do not include any kind of counseling or psychological services (Klerman, 1981). Thus, the Adolescent Infant and Child Health Act should be amended to include counseling and psychological services as a core component of Federally funded programs and grant money should be made available to encourage the development and expansion of such services.

Ever since adolescent pregnancy and childbearing have been recognized as a major social problem in this country, there has been considerable progress in developing programs to serve the needs of adolescent mothers and their children. However, as a new decade begins, it is time to examine existing programs, identify their limitations and develop new goals for the future. Programs should be updated to meet the changing needs of adolescent parents. This study indicates that adolescent parents today are at risk for a variety of psychological problems and need access to counseling services which address their unique needs. It is also important to continue to identify and recognize that developmental differences do exist between adolescent parents and to tailor programs accordingly, so that the specific needs of each age group will be served.

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