THE CONTRIBUTION OF SOCIODEMOGRAPHIC AND PSYCHOLOGICAL VARIABLES TO THE PREGNANCY DECISIONS OF PREGNANT ADOLESCENTS

by

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The Contribution of Sociodemographic and Psychological Variables

to the Pregnancy Decisions of Pregnant Adolescents

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Abstract

An adolescent's decision to continue or to terminate an unplanned pregnancy is time-limited and consequential. This study examines the influence of sociodemographic, social support, self-image, coping and defending, and locus of control variables on adolescent pregnancy decision-making. Participants were 38, single adolescents (age 14 to 19) choosing either to continue (*N* = 16) or to terminate (*N* = 22) their first pregnancy. The Demographic and Attitudes Questionnaire, the Social Support Questionnaire, the Offer Self-Image Questionnaire, the Joffe and Naditch Coping and Defending Scale and the Children's Nowicki and Strickland Internal-External Control Scale were completed after a pregnancy decision was reached but prior to delivery or abortion. Regression analysis was used to identify variables that differentiate the groups. Results indicate that academic performance differentiated delivery and termination groups. Those in the delivery group reported poorer academic performance in the previous two years than did those in the termination group. This is consistent with previous research and provides information relevant to a general theory of female adolescent development and to clinical work with pregnant adolescents.

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I

INTRODUCTION

An unplanned pregnancy is a stressful event for many adolescents. Adolescence is characterized by transitions in many aspects of physical, emotional, cognitive and social functioning, such as acceptance of sexuality, autonomy from parents, development of moral reasoning and formation of identity. These transitions are highlighted for the pregnant teen involved in a decision to continue or to terminate her pregnancy.

The decision to continue or to terminate the pregnancy is intricately influenced by the adolescent's sense of self, family relationships, relationship to her partner, and educational and career goals. The decision is complex, time limited, and consequential and yet the decision-making of pregnant adolescents has been minimally researched. An increased understanding of this process has implications for a general theory of female adolescent development and specific clinical applications for pregnant adolescents.

The purpose of the present study is to identify the relative contributions of sociodemographic and psychological factors to the adolescent's choice of abortion or single parenting as the resolution of her unplanned pregnancy.

The following review considers the social perspective, consequences, specific research and psychological theory relevant to the study of pregnancy resolution in adolescents. This is followed by a clear statement of the present research goals.

1.1 Social Perspective on Adolescent Pregnancy

By the early 1980s adolescent pregnancy, childbearing and parenting was considered a problem of "epidemic" proportions in the United States (Alan Guttmacher Institute, 1981). The United States has the highest rate of adolescent childbearing of any Western nation (Jones, Forrest, Goldman, Henshaw, Lincoln, Rosoff, Westoff & Wulf, 1985) and this is double the Canadian rate.

In Canada the fertility (birth) rate for adolescents aged 15-19 was at a low of 25.7 per 1,000 in 1936, climbed steadily to a peak of 60.4 per 1,000 in 1959 and then essentially declined steadily to the 1989 rate of 25.8 (Statistics Canada, 1991b). In absolute numbers, the number of babies born to adolescents was 37,925 in 1959, peaking at 42,574 in 1970 and declining to 22,697 in 1989 (Statistics Canada, 1991b). The peaks and lows in fertility rates and actual numbers of births are not parallel since the number of births is a product of the fertility rate and the size of the adolescent population.

At present, in Canada, the number and rates of adolescent pregnancies are comparatively low due to decreased absolute numbers of adolescents and an increased use of contraception among young people (Grindstaff, 1988). And yet, social concern for adolescent pregnancy remains. This concern cannot be solely attributed to the rates or numbers of adolescent births but is more adequately explained by two phenomenon of the present social climate: adolescent single parenting and adolescent abortion. These changes in individual and societal response to parenting and pregnancy are contentious, particularly in reference to adolescents, and account for the continued social concern with adolescent pregnancy.

The visible increase in single parenting among adolescents resulted from demographic changes dating back to the late 1950s when adult fertility rates declined. Adolescent rates declined, but not as quickly, and a larger proportion of adolescent mothers remained unmarried and decided to keep their babies. These choices revealed what the relatively early marriages in the period following World War Two had concealed: a high rate of premarital sexual activity. In the United States, in the late 1950s, almost 50% of women married before age twenty and almost half of these were pregnant (O'Connell & Moore, 1980).

Prior to 1969, abortion was strictly illegal in Canada, unless the woman's life was seriously endangered. Thus, the majority of adolescents who became pregnant would give birth. In 1969, Parliament amended the Criminal Code so that under specific conditions the criminal sanctions against abortion would not apply (Library of Parliament, 1990). This moderately liberalized abortion law meant that some pregnant adolescents in some parts of Canada had access to abortion.

The increased accessibility of abortion and the increased acceptance of single parenting have produced the picture of adolescent pregnancy seen today. In Canada, since 1961, approximately 40,000 to 50,000 adolescents have become pregnant each year (Statistics Canada, 1991b). Of these, approximately 45 to 60 percent continue the pregnancy and approximately 40 to 55 percent obtain abortions. The proportion of continued pregnancies to abortions fluctuates across years and varies across provinces and territories (Statistics Canada, 1991a).

Of adolescents choosing to continue the pregnancy the majority decide to parent. The number of adolescents choosing adoption as a resolution to an unplanned pregnancy has shown a steady decrease over the last thirty years (Leynes, 1980). In the 1970s, 70 to 80 percent of adolescent mothers made adoption plans; in the

1980s, estimates for adolescent adoption plans range from 3 to 15 percent (Resnick, 1984).

The trends of earlier sexual behaviour (Zelnick & Kantner, 1980), later marriage, importance of education and careers for women and legalization of abortion have created a social environment with changed consequences for adolescent childbearing and parenting (Hayes, 1987).

The following 1989 Canadian statistics are presented to indicate the general social climate under which the present research was conducted. There were 22,697 live births (a rate of 25.6 per 1,000) and 15,843 abortions (a rate of 16.2 per 1,000) to adolescents in Canada. These accounted for about 6% of all births and 21.4% of all abortions in Canada in 1989. In British Columbia there were 2,558 live births (25.2 per 1,000) and 2,448 abortions (24.2 per 1,000).

The adolescent birth rate in B.C. is slightly below the national rate for adolescents of 25.6; the abortion rate is significantly above the national rate for adolescents of 16.3. The slightly lower birth rates and significantly higher abortion rates in B.C., as compared to all of Canada, are paralleled in the adult population.

1.2 Consequences of Abortion or Single Parenting

Adolescent abortion and parenting have physical, emotional, moral, social and economic consequences for the pregnant adolescent, her partner, family, child and

society in general. The following section focuses on the consequences for the pregnant adolescent herself. It should be noted that historically, research has focused only on the negative consequences of pregnancy decisions. Positive outcomes have not been extensively considered with a few exceptions (see Adler, 1975).

i) Abortion Consequences

The research on the consequences of adolescent abortion has focused on the medical and psychological risks; economic and social costs are much less salient. Adolescents are not more likely to suffer medical complications from abortion than are adult women. The mortality rate for continuation of the pregnancy is five times higher for adolescents than the mortality rate associated with abortion (Cates, 1982).

The studies of psychological response to abortion for women in general conclude that while the decision to abort is stressful, the abortion itself is not likely to lead to severe emotional distress and the predominant reaction is relief (Adler & Dolcini, 1986; Olson, 1980; Osofsky, Osofsky & Rajan, 1973). However, abortion studies have been plagued by poor methodology, inconsistency of definition and attrition to follow-up (Adler, 1976; David & Friedman, 1973; David, Rasmussen & Horst, 1981).

Olson (1980) concludes in her review of the literature that abortion is not psychologically harmful

to the adolescent. However, there is some evidence that adolescents do have a more negative psychological reaction to abortion than adult women (Adler, 1975; Bracken, Hachomovitch & Grossman, 1974; Payne, Kravitz, Notman & Anderson, 1976). The differences are statistically significant but the magnitude of the differences is not great. This question has not been adequately addressed, particularly in the more recent literature.

ii) Parenting Consequences

The research on the consequences of adolescent parenting has been fueled by a sense of social crisis and has focused on the social and economic consequences. The costs of adolescent parenting are usually more severe and protracted than those of adolescent abortion. Campbell's (1968) much quoted statement that

> "the girl who has an illegitimate child at the age of 16 suddenly has 90% of her life's script written for her....Her life choices are few and most of them are bad" (p.238)

has in many ways been substantiated by subsequent research.

Early childbearing is linked to school dropout (Card & Wise, 1978; Haggstrom, Kanhouse & Morrison, 1983; Mott & Maxwell, 1981). There is disagreement over the precise causal connections and strength of the link between

school dropout and early childbearing but agreement that the educational attainment of the parenting adolescent is lower than that of counterparts who delay childbearing (Furstenberg, Brooks-Gunn & Morgan, 1987; Maracek, 1979).

Occupational attainment is directly connected to education. Lower education results in problems in employment with adolescent mothers less likely to find stable and renumerative work and more likely to receive public assistance (Card & Wise, 1978; Grindstaff, 1988; Hofferth & Moore, 1979).

Early childbearers are more likely to experience a larger family size, family disruption in later life and a greater chance of a single parent families (Chilman, 1983; Moore & Burt, 1982).

Furstenberg, Brooks-Gunn and Morgan (1987), in an extensive follow-up study, conclude that the popular belief that early childbearing almost certainly leads to school dropout, subsequent unwanted births and economic dependency is greatly over-simplified. Diversity characterizes the life course of adolescent parents. However, although many adolescent mothers manage to finish school and break out of the inevitable cycle of poverty they definitely do not do as well as counterparts who delay childbearing.

It is apparent that the pregnant adolescent is faced with a consequential decision, yet our understanding of this process is incomplete. An increased understanding

of the factors that contribute to the adolescent's decision to continue or to terminate her pregnancy is relevant to pregnancy prevention, pregnancy counselling and intervention and support for both abortion and parenting decisions. Relevant empirical literature and psychological theory is considered for an increased understanding of factors and processes that may influence adolescent pregnancy decision-making.

1.3 Research Relevant to Adolescent Pregnancy Resolution

The issues of adolescent pregnancy, abortion and parenting are socially sensitive research and research in these areas has

> "potential social consequences or implications, either directly for the participants in the research or for the class of individuals represented by the research" (Sieber & Stanley, 1988, p. 735).

In socially sensitive research it is important to carefully consider the ethical implications of the research question, the research process and the potential application of the results.

The problems inherent in conducting research on adolescents, pregnancy, abortion and parenting are also apparent in reviewing the literature. The nature of the research topic invites the implicit intrusion of personal values. A careful review of the literature indicates that researchers bring both theoretical and personal biases to their studies. These are rarely acknowledged

explicitly but are frequently observed in the leap from empirical results to the author's concluding discussion; the confounding of "fact" with "values" is sometimes blatant. The value-laden nature of this research area necessitates both personal introspection and very critical reading of the literature.

The intrusion of personal values is not the only problem in adolescent pregnancy research. There are serious research lacunae in comparative studies of adolescents who abort and those who carry to term. Although adolescents are clearly a distinctive subgroup among pregnant women, most studies combine women of different ages and marital status. Other problems include small, clinical samples, lack of controls, unsophisticated methodology, limited range of variables and the absence of a guiding theory of female psychological development.

These problems contribute to atheoretical, fragmented, and noncumulative findings which are insufficient to support an adequate understanding of adolescent pregnancy resolution. Canadian research is further limited by an excess of grey or fugitive literature (unpublished conference proceedings etc) resulting in dependence on American data (Ferguson, 1983).

The dependence on American research, which was fueled by a sense of social crisis in that country, has

produced a research emphasis on the sociodemographic characteristics associated with pregnancy resolution in ethnic minorities (Landry, Bertrand, Cherry & Rice, 1986; Olson, 1980). There has been limited focus on adolescents in general or adolescent pregnancy in terms of adolescent developmental theories. The research has been generally unsatisfactory in terms of describing how the teen thinks about her pregnancy and the factors she considers in making her decision.

In a review of the literature, Olson (1980) concludes that adolescents choosing abortion do differ from their delivery counterparts on a number of significant sociodemographic and psychological variables, such as age, race, religion, attitudes to abortion, social support and self-image. The sociodemographic variables are more easily, and therefore extensively, studied. There is empirical support that race, age, school performance, sources of financial support, socio-economic status and religion differentiate the abortion and parenting groups. The social variables of potential interest to the present study are age and academic performance.

American research has consistently indicated that very early (15 years or younger) or late (18 to 19) adolescents are more likely to choose abortion while 15 to 17 year olds are more likely to continue the pregnancy (Hofferth, 1987). The focus of research on poor ethnic

minorities may account for this finding. Age difference in choice is statistically nonsignificant when socio-economic status is held constant, indicating that adolescents living in poverty, regardless of age, are more likely to choose to continue the pregnancy (Joyce, 1988).

The variable of academic performance consistently differentiates across studies between the abortion and parenting groups with limited exceptions (see Landry, Bertrand, Cherry & Rice, 1986). Adolescents choosing abortion have better academic performance and more specific career aspirations than those choosing to parent (Abrahamse, Morrison & Waite, 1988; Card & Wise, 1978; Evans, Selstad & Welcher, 1976; Hansen, Stroh & Whitaker, 1978; Kramer, 1975). School marks alone have made a significant contribution to distinguishing between groups (Eisen, Zellman, Leibowitz, Chow & Evans, 1983). Adolescents choosing single parenthood have poorer school performance and more academic difficulties (Evans, Selstad & Welcher, 1977; Fischman, 1977).

The psychological variables are more difficult to assess and research is more susceptible to inadequate methodology. The social climate surrounding the issues of adolescent sexuality, abortion and parenting directly interacts with psychological variables. With this in mind, it is important to note that the majority of studies referenced focus on urban, black American

adolescents in the 1970s (in the United States abortion was nationally legalized in 1973, Roe v. Wade). Past research has considered attitudes (particularly towards abortion), social support, self-image and locus of control as they contribute to the pregnancy decision (Bracken, Klerman & Bracken, 1978; Freeman, 1977).

The most studied psychological variable contributing to the pregnancy decision has been attitudes towards abortion. The predominant finding is that women who choose to continue the pregnancy have moral objections or negative attitudes towards abortion (Bracken, 1973; Bracken, Klerman & Bracken, 1978; Evans, Selstad & Welcher, 1977; Fischman, 1975; Fischman, 1977). Many studies have found abortion attitudes to be the most statistically significant predictor of the pregnancy decision (Eisen, Zellman, Leibowitz, Chow & Evans, 1983; Evans,Selstad & Welcher, 1977). However, Smetana (1978) found that adult women were more liberal in the abstract than they were about their own abortions and Freeman (1977) found that women with conservative attitudes to abortion may still choose to abort their own pregnancy. This indicates that attitdes towards abortion are not necessarily consistent with actions.

The adolescent attitude to abortion has not been assessed prior to the unplanned pregnancy in any study reviewed. The measurement of abortion attitudes does not proceed the decision or, at least, decision process.

Cognitive dissonance theory (Festinger, 1957) predicts that once people make a decision or behave in a particular way their attitude becomes more consistent with their choice. There is a strong possibility that abortion attitudes are "possibly illegitimate" (Koopman, personal communication, September, 1991) variables since they are not conceptually independent from the dependent variable of choice.

The present literature review found no studies adequately comparing the self-image of adolescents choosing abortion to those continuing the pregnancy. The self-image (or especially, self-esteem) of pregnant compared to non-pregnant adolescents has been studied and yields mixed results. The self-esteem/self-image of pregnant adolescents has been found to be poorer than adolescents in general (Horn & Rudolph, 1987; Hornick, 1978; Zongker, 1977) in some studies. Other research indicates no difference (Bracken, Klerman & Bracken, 1978; Freeman, 1977; Held, 1981; Vernon, Green & Frothingham, 1983). Many of these studies have not used psychometrically adequate measures. The possible contribution of self-image to an adolescent's pregnancy decision has intuitive and theoretical appeal but empirical support is not strong.

The psychological variable of social support has received limited attention in research on pregnancy decision-making. The adolescent who continues the

pregnancy usually reports greater social support than the adolescent who chooses abortion (Bracken, Klerman & Bracken, 1978; Eisen, Zellman, Leibowitz, Chow & Evans, 1983; Fischman, 1977; Rosen, 1980). Since social support is often evaluated during pregnancy the effect of pregnancy on social support, rather than social support's influence on decision-making may be being assessed. The limited research on the contribution of social support to the adolescent's pregnancy decision-making indicates no differrnce between abortion and parenting groups (Carlson, Kaiser, Yeaworth & Carlson, 1984).

Locus of control is an assessment of personal control and represents a generalized expectation of events being determined by one's own behaviour or by random forces (Rotter, 1966) and is a frequent component of many clinical studies. Lewis (1980), in a study comparing pregnant adolescents and adults, concluded that the most striking age-related difference is the adolescent perception that their decision is externally determined. However, there are methodological problems that would limit generalizability beyond the sample. Generally, the locus of control variable has shown limited or non-significant contributions to the adolescent pregnancy decision relative to socio-demographic variables (Bracken, Klerman & Bracken, 1978; Giblin, Poland & Ager, 1988).

In summary, empirical support for the contribution of psychological variables to the adolescent's pregnancy decision has been limited. Psychological variables have not been extensively or intensively researched and much of the available research has methodological flaws. Clinical experience indicates that the pregnant adolescent's decision is not determined by sociodemographic variables alone. Perhaps psychological theory offers some guidance as to which psychological variables influence an adolescent's pregnancy decision.

1.4 Theory Relevant to Adolescent Pregnancy Resolution

The developmental tasks of autonomy and identity formation are central in adolescence (Lewis, 1987). The achievement of these tasks requires the development of skills and competencies in cognitive, moral, social and emotional realms and increased pressure for problem solving and personal decisions. The resolution of adolescent pregnancy concentrates the many developmental tasks of adolescence into one crisis situation.

It is reasonable to assume that adolescent developmental theory can offer guidance and insight into aspects of the adolescent experience that are relevant to adolescent pregnancy resolution. The following sections will consider the limitations of theories of adolescence as related to the present issue of pregnancy resolution. The contributions from psychoanalytic, psychosocial and

social learning theory as each relates to constructs considered important in the present research will then be discussed.

i) Limitations of Psychological Theory

There are two major limitations of psychological theory of adolescent development as it pertains to regnancy resolution in adolescents. Succinctly, theory has been based on the psychologically disturbed male; each of these limitations, "psychologically disturbed" and "male" will be addressed in turn.

The psychoanalytic view of adolescence has been one of extreme inner turmoil for, "to be normal during the adolescent period is by itself abnormal" (A. Freud,1958, p. 275). This view is based on the theoretical work of psychiatric clinicians working with disturbed adolescents in clinical or correctional settings in the 1950s and 1960s (Blos, 1962; Erikson, 1959, 1966; Freud, 1946, 1958) and remained essentially unchallenged for years. There was little attempt to objectify the criteria for normality and psychopathology and most of the research depended on in-depth case reports.

The turmoil theory of adolescence has been disputed by every representative study of "normal" adolescents (Block, 1971; Csikszentmihalyi & Larson, 1984; Douvan & Adelson, 1966; Elkin & Westley, 1955; Offer & Offer, 1975; Offer, Ostrov & Howard, 1981; Westley & Epstein, 1969). Adolescence is a time of development that requires

many changes, but is not usually a time of extreme turmoil. Epidemiological studies indicate that 10 to 20 percent of adolescents show some type of severe emotional disturbance, a rate which is similar to the adult population (Petersen, 1988).

The general masculine bias in psychoanalytic theory has influenced research on adolescent girls who "simply have not been studied much (Adelson, 1980,p.114). As recently as 1980, a handbook of adolescent psychology did not include a chapter on female adolescent development after a distinguished scholar in women's psychology concluded there was insufficient material to warrant a separate chapter (Adelson & Doehrman, 1980, p. 114).

The theory-building studies of psychological development have repeatedly excluded women (Gilligan, 1982). This omission of girls and women in representations of human psychological development is particularly problematic in the study of pregnant adolescents; logically, a male-based theory may not best describe the pregnancy decisions of adolescent girls. The female need for attachment and connection to others presents a useful way to conceptualize the pregnancy decision, yet psychological theorists have only recently begun to consider these issues (Chodorow, 1978; Gilligan, 1982; Miller, 1976; Stern, 1991).

Erikson, the primary theorist of adolescent development presents a primarily masculine theory in

which boys are described as resolving issues by active decision-making whereas girls do not have active choice since their adult role is determined by marriage. He states:

> "much of a young woman's identity is already defined ...in the selectivity of her search for the man or men by whom she wishes to be sought" (Erikson, 1968, p.282).

While this statement reflects an observation of the social circumstances of the time, Erikson did not pursue gender differences but continued to focus on male adolescents. The concepts of separation and autonomy may be less central to identity in women than issues of connection and relationship (Gilligan, 1984; Miller, 1976). Affiliation, intimacy and nurturance are all issues of potential interest in the study of adolescent pregnancy resolution.

In summary, an understanding of adolescent psychology has been limited by the "psychologically-disturbed and/or male" models that have predominated adolescent theory.

ii) <u>Psychoanalytic Theory and Defense Mechanisms</u>

Freud considered ego development as the primary task of adolescence. The sexual impulses repressed during the latency period reappear as a result of puberty. The intensity of these impulses upsets the previous balance between id, ego and super-ego resulting in psychological

conflict and emotional turmoil. The ego responds to increased internal drives and external events and its development allows the adolescent to develop the capacity to form mature heterosexual relationships, become an increasingly independent person, make new attachments and understand societal rules (Blos, 1979).

A principle contribution of psychoanalytic theory in terms of personality development has been its "careful and perceptive elucidation of the techniques required to cope with or defend against anxiety" (Conger & Petersen, 1984, p. 64). Defense is a process that people use to preserve a sense of their own integrity despite sacrificing a usual adherence to logic and the consensus of others (Haan, 1977). Defense mechanisms are unconscious mechanisms for controlling anxiety by distorting reality.

The increased urgency of the instincts in adolescence has produced speculation that there is an increased number of defenses mechanisms used in adolescence as compared to other periods of life (A. Freud, 1958; Douvan & Adelson, 1966). There has been no known research on the use of defense mechanisms during the decision-making of adolescent pregnancy but the intuitive value of this contribution to the process warrants further discussion.

Haan (1977) suggests that

> "Freud was oversold on the omnipresence and centrality of pathological functioning but undersold on the importance of rational determinations in everyday life while Piaget was oversold on the omnipresence of rationality and undersold on the willingness of people to twist, bend and forgo rationality when it suits them" (Haan, 1977, p.6).

An integration of Freudian insights and Piagetian constructs is needed to fully describe the psychology of persons within situations. Haan (1977) reorganized the central ideas of Freudian defenses to make them compatible with the Piagetian constructivist view. Her integration centres on the concept of ego as a series of processes.

Ego processes and their organization are central to the idea of personality since ego processes represent a person's general intent or principle of attaining and maintaining a consistent sense of self (Haan, 1977). Defense mechanisms represent just one mode of the ego processes that people use to solve everyday problems and live their lives. Haan's (1977) model of ego processes includes coping as a non-pathological form of ego functioning that does not negate reality, suggesting that intrapsychic anxiety may be handled by either coping or defensive processes.

The conceptualization of coping as a non-pathological intrapsychic process is inconsistent with psychoanalytic theory. Defense mechanisms were not

paralleled by an ego process of non-pathological functioning and A. Freud (1958) made the distinction that coping deals with extrapsychic and defending with intrapsychic phenomenon.

Haan's model of ego processes includes coping functions, defense mechanisms and fragmentation; coping and defense will be considered here. The processes involved in the defenses are the classical ones, first suggested by Freud, elaborated by A. Freud and now common terms in psychology. Haan assumes that the mental processes involved in the coping mechanisms and the defense mechanisms are identical and that a full description of ego processes must consider both.

The coping processes have been defined to parallel the defenses; for example, projection involves the process of apprehending another's feelings as does empathy, its coping counterpart. Projection is rigid, compelled, reality-distorting and undifferentiated while empathy is flexible, purposive, reality-oriented and differentiated.

In normative circumstances the person can react to her world using coping processes and the resulting behaviour is a reasonably accurate representation of the person's level of development. Coping processes accurately represent whatever level of social, cognitive, moral and affective development the person has achieved.

In non-normative situations the affect (anxiety) is so disruptive to the sense of self that defensive reactions are used and the resulting behaviour is a misrepresentation of the person's level of structural development. The person will cope when she can and defend when she has to but whatever process is used it is done in an attempt to preserve organization (Haan, 1977).

Although coping does not ensure success and defending predict failure, the persistent use of coping strategies should lead to viable solutions and developments. The person utilizing a defense has the capacity to do better and this discrepancy between our capacity and our performance is a pivotal part of Haan's theory.

Psychoanalytic theory has provided interesting and theoretically-rich concepts to the study of human behaviour but these concepts have been difficult to operationalize and study empirically. Haan (1977) has provided a model of ego functioning and a measurement tool by which relative strengths and weaknesses of ego transactions can be assessed. The distinction between coping and defense allows for non-polarity in which real people are neither all coping or all defending but a functional combination.

The focus on process or "how did the behaviour come about?" has utility in the study of adolescent pregnancy decisions. A transitional period of the lifespan like

adolescence and/or pregnancy may require ego capabilities that the person has not developed or does not easily use. It has been suggested that the pregnant adolescent may use the unconscious defense of denial in response to her pregnancy (Huff, 1987; Krishnamoni, 1992). The tendency of the adolescent to use coping or defending processes in this situation has implications for her decision concerning the pregnancy.

iii) <u>Psychosocial Theory and Identity</u>

A major contribution to the concept of adolescent "self" is Erikson's (1956) concept of identity formation. The central issue of adolescent development is the search for identity. The development of a sense of identity is the centre around which all other adolescent decisions revolve.

The terms identity, self-concept and self-image are used loosely throughout the literature. Identity, in the Eriksonian sense, develops throughout adolescence and culminates in a stable, consistent and reliable sense of who one is (Josselson, 1987, p. 10). The terms self-concept and self-image have been used interchangeably (Petersen, 1981) to refer to the "totality of the individual's thoughts and feelings having reference to the self as an object" (Rosenberg, 1979, p.7). Self-image can exist at any given time, bounded by the individual's developmental, cognitive and affective status; identity involves process and evolution.

In its simplest construction the adolescent pregnancy decision centres on the self (Gilligan, 1982). The girl's present self-image will guide the decision about what to do about her pregnancy. The conflicts presented by the pregnancy and their resolution are directly related to issues that are critical to the development of identity. Identity incorporates a girl's choices for herself, her priorities and the guiding principles by which she makes decisions (Josselson, 1987)

iv) Social Learning Theory and Locus of Control

The study of adolescent pregnancy resolution cannot be fully understood in terms of defense mechanisms or self-image. Social learning theory stresses learned behaviours, particularly those learned by watching others or having behaviour reinforced by others (Bandura, 1986).

Social learning theory attempts to integrate stimulus-response (reinforcement) theory and cognitive or field theory. A basic assumption in social learning theory is that the unit of investigation for the study of personality is the interaction between the individual and their meaningful environment. The variables that describe this interaction are behaviours, expectancies, reinforcements and psychological situations (Rotter, 1990). The potential for behaviour to occur in any specific psychological situation is a function of expectancy and reinforcement value, essentially, "will it occur?" and "how much do I care?"

Internal versus external control refers to the degree to which persons expect that a reinforcement (an outcome of their behaviour) is contingent on their behaviour or personal characteristics versus the degree to which they expect that reinforcement (outcome) is a function of chance, luck, fate, under powerful others' control or is just unpredictable (Rotter, 1990, p.489). There is an extensive literature on the construct of external control of reinforcement as well as numerous cautions about the misinterpretations and misuses of the scales used to assess this construct (Lefcourt, 1976; Phares, 1976; Rotter, 1975, 1990; Strickland, 1989).

Locus of control is the more commonly used term for internal versus external control of reinforcement. The belief in causality and personal control has important implications for adolescent pregnancy resolution and the empirical literature indicates some utility of internal-external belief measures (Bracken, Klerman & Bracken, 1978; Lewis, 1980).

v) Social Support

The idea that individuals need to be embedded in groups of people who provide love and a sense of belonging is not new (Fromm, 1955; Maslow, 1954; Murray, 1938). This concept, more recently defined as social support, has received a great deal of attention as a mediator between stress and psychological and physical health.

Cassel (1976) focused on stress and emphasized the importance of the environment, specifically other people, as mediators of stress. Social support could be used as a buffer in situations of crisis and the strengthening of social support, rather than an attempt to decrease stressors, was postulated as the best way to prevent disease.

Cobb (1976) also explored social support as a buffer of stress and a mediator of disease. He defined social support as the feeling of being cared for, the belief that one is loved, esteemed and valued and the sense of belonging in a reciprocal network.

The area of social support research has been plagued with theoretical and methodological problems and these issues have been addressed in depth in a number of important reviews (Heller, 1979; House, 1981; Sarason & Sarason, 1985, Thoits, 1982).

Historically, the basic problem in social support research has been the theoretical tendency to accept social support as a unidimensional construct and the empirical tendency towards multiple measurement. This problem in social support research is identified by Heller, Swindle and Dusenbury (1986) who observe that,

> "one would never think of doing research on the relation of "personality" to health outcomes with the expectation that any personality variable would show the same pattern of relations with outcome variables as any other personality variables. Yet social support researchers have been engaged in a similarly dubious endeavor" (p.467).

There is wide agreement that social support is a multidimensional phenomenon (Caplan, 1974; Cohen & McKay, 1984; House, 1981; Thoits, 1982) in need of a unifying and guiding theory. The search for theory is the most important and promising development in the field of social support (Sarason, Sarason & Pierce, 1990).

A recent proposed model organizes the components of global "social support" in a testable, theoretical framework. This framework is guided by the three major methodological approaches that have emerged in studying social support; the mapping of social networks, assessment of support available in daily lives and the individuals' own perceptions of support (Sarason, Sarason & Pierce, 1990).

An individual's perception of social support is the perception that they are accepted, valued and loved and have available to them people who will help if necessary (Sarason, Levine, Basham & Sarason, 1983). It is perceived social support that is most closely related to health outcomes (Antonucci & Isreal, 1986; Blazer, 1982; Sandler & Barrera, 1984; Wethington & Kessler, 1986). It has been suggested that perceived social support may be best considered as a consistent characteristic within the individual to expect unconditioned acceptance no matter what happens. This core sense may be considered an adult equivalent of infant attachment (Sarason, Sarason & Pierce, 1990).

Bowlby's theory of attachment (1969; 1973) refers to the intense social and emotional bond that develops between an infant and her primary caretaker. The early attachment figure in an infant's life provides the earliest form of social support. This attachment provides the security and love that enhances exploratory behaviour and allows the child to become self-reliant. If the attachment relationship is secure over time the child will be able to take risks in forming relationships since rejection is not as salient. The perception of being loved and accepted is created in early social relationships and validated by relationships over time.

Social support and attachment share the core idea of rewarding ties with other people (Sarason, Sarason & Shearin, 1986). It is hypothesized that early experience with an attachment figure contributes to a person's schema for future relationships and feelings of self-worth, self-efficacy and a capacity to enjoy intimacy (Hazan & Shaver, 1987; Reis & Shaver, 1987).

This conceptualization of social support is appropriate to decision-making in adolescent pregnancy. Pregnancy highlights the issue of attachment or connection to others. This is both in an immediate and literal way but also by very clearly indicating the capacity to assume an adult, feminine role.
The adolescent's perception of social support may be indicative of how she views herself and others in

relationships and will influence the decision she makes about her pregnancy.

1.5 Present research

The decision to have an abortion or to become a single parent represents very different choices and consequences for the pregnant adolescent. It is assumed that some combination of sociodemographic and psychological variables will differentiate the two groups. The purpose of this exploratory, descriptive study is to determine the contribution of sociodemographic and psychological variables to the pregnancy decisions of pregnant adolescents. Clinical experience, empirical research and psychological theory suggest the following hypotheses in the present study:

1. In general, it is hypothesized that the groups will not be similar and can be discriminated by some combination of the following 10 sociodemographic and psychological variables: academic performance, partner's age, self-image (social self, coping self, family self and psychological self subscales), social support, coping processes, defense processes and locus of control.

2. Specifically, theory and research indicate the a priori hypothesis that the groups will be best discriminated by three particular variables: academic performance, social self and coping self.

II

METHOD

Participants

The sample of 38 pregnant adolescents, 22 in the abortion group and 16 in the parenting group, was recruited from 21 agencies serving pregnant and parenting adolescents in the Vancouver Lower Mainland area from February, 1990 to September, 1991. The participants were single, primiparous adolescents, ages 14 to 19, experiencing an unplanned pregnancy. Self-selection to either the abortion group or the single parenting group was determined by each participant's decision concerning her pregnancy.

Procedure

The study protocol was reviewed and approved by the University Ethics Review Committee, Simon Fraser University, Burnaby, British Columbia and by appropriate representatives at each of the participating agencies. The procedure of contacting participants varied due to various ethical and practical concerns of participating agencies. The participant was contacted by the primary researcher or by staff at various agencies serving pregnant and parenting adolescents. In some cases the subject self-referred to the study after seeing posters or brochures. The purpose of the study was explained and

informed consent was obtained. The participants then completed a package of self-administered questionnaires either in an interview setting or alone, depending upon preference.

Instruments

1. Measurement of Clinical, Demographic and Attitudinal Variables

A self-report questionnaire consisting of 70 items was developed to evaluate clinical, demographic and attitudinal variables. The questionnaire was divided into four sections: personal information, information about the partner, family information and questions about the pregnancy decision.

The personal information section included questions on age, gestation, contraceptive use, school performance, relationship to partner, attitudes towards abortion and single parenting and knowledge about each of the options available.

The partner information section included questions on age, school, employment, time together and attitudes to single parenting and abortion. The family information section included questions on marital status, education, employment and attitudes to abortion and single parenting.

The pregnancy decision section included questions on difficulty in making the decision, satisfaction with the decision, influence from others and attitudes towards

abortion, adoption and single parenting.

The questions required either a specific answer, a multiple choice response or a scaled response (see Appendix).

2. Measurement of Social Support

The Social Support Questionnaire (SSQ6) (Sarason, Sarason, Shearin & Pierce, 1987) was used to measure perceived social support. The SSQ6 is a six-item short form of the 27-item Social Support Questionnaire (SSQ) (Sarason, Levine, Basham & Sarason, 1983). It consists of 6 items requiring a two-part response. The subjects list the number of people they can count on for support in 6 given circumstances and how satisfied they are with that support. This two-part response produces two social support scores, number of supportive people (SSQN) and satisfaction with the support (SSQS).

The SSQ6 has high test-retest and internal reliabilities (internal reliabilities for the SSQ6 ranges from .90 to .93 for both Number and Satisfaction) and correlates highly with the SSQ and similarly to it with personality variables.

3. Measurement of Self-Image

The Offer Self-Image Questionnaire (OSIQ) (Offer, Ostrov & Howard, 1982) was used to assess self-image. The OSIQ is a self-descriptive structured personality test composed of 130 questions organized into 11 scales:

impulse control, emotional tone, body and self-image, social relationships, morals, vocational-educational goals, sexual attitudes, family relationships, mastery of the external world, psychopathology and superior adjustment. These 11 subscales are conceptualized in terms of five "selves": psychological, social, sexual, familial and coping selves. The social self and coping self were considered the most relevant to the present study.

The measure rests on the assumptions that it is necessary to evaluate adolescent functioning in many areas since an individual may master one area and fail in another and that the psychological self-perceptions of the adolescent are reasonably acute.

The OSIQ takes about 40 minutes in which the person indicates how well each statement describes themselves. The six response alternatives are 'very well', 'well', 'fairly well', 'not quite', 'not really' and 'not at all'.

The OSIQ is a reliable and valid psychological instrument with utility for research on normal and psychiatrically disturbed adolescents, ages 13 to 19 (Offer, Ostrov, & Howard, 1982). The internal consistency for the scales in four separate normal populations (younger females, younger males, older females, older males) ranges from correlation coefficients of .36 to .88. The test-retest coefficients

range from .48 to .84 for the individual scales and is .73 for the total score (Offer, Ostrov & Howard, 1982). The concurrent validity of the OSIQ is assessed with moderate to high correlations between the OSIQ and the Bell Inventory, the Minnesota Multiphasic Personality Inventory and the Tennessee Self-Concept Test (Coche & Taylor, 1974; Hjorth, 1980; Offer, 1969).

4. Measurement of Coping and Defending

The Joffe and Naditch Scales (J and N Scales; Joffe & Naditch, 1977) were used to measure coping and defending processes. These scales are a revision of the older scales constructed by Haan (1965). A complete description of the development of the original and the revised scales is given in Haan (1977). This pencil-and-paper measure of ego mechanisms was constructed by selecting 65 items from the California Personality Inventory (CPI; Gough, 1969) which predicted clinical ratings of coping and defenses. The general tendency to cope or defend is evaluated by two summary scores, one for coping (34 items) and the other for defending (35 items). The modest test-retest reliabilities for the Summed Coping and Summed Defending subscales are .69 and .58 respectively (Joffe and Naditch, 1977).

Initial reliability data (Haan, 1965) indicates adequate internal consistency as assessed by the Kruder-Richardson formula with both coping and defense scales having a mean reliability of .70. Validity data,

assessed by comparing the ego scales to scales on the MMPI and CPI was favourable. The coping scale has positive and the defense scale has negative correlations with the appropriate CPI subscales. For example, Summed Defense had a significant ($p \leq .001$) negative relationship with the CPI scales of sociability, self-acceptance and sense of well-being and Summed Coping had a significant ($p \leq .001$) positive relationship with social presence, tolerance and self-acceptance (Joffe & Naditch, 1977).

A comparison of the J and N Scales with two common measures of coping and defending [the Coping Operations Preference Inquiry (COPE; Schutz, 1967) and the Defense Mechanism Inventory (DMI; Gleser & Ililevich, 1969)] showed little relationship across instruments (Vickers, Ward & Hanley, 1980). The authors concluded that the J and N Scales provide a more valid measure of defenses than the DMI and the COPE since only the J and N Scales showed concurrent validity ($r = .32$) with clinical ratings. In terms of concurrent validity, the original cross-validation coefficients of the J and N Scales ($r = .32$) were replicated by Vickers, Ward and Hanley (1980) in a study of 26 men who had failed military basic training.

The evidence for construct validity is piecemeal and does not integrate easily into a clear picture. This is not likely to change quickly since this scale is not used

widely. The broadest test of the scale differentiated college students seeking therapy from no-therapy controls with controls scoring lower on defense and higher on coping scales (Thelen & Varble, 1970). The most systematic attempt to assess the validity of the Haan model has been a series of studies (Naditch, 1974, 1975 a,b; Naditch, Gargan & Michael,1975) on drug use, problem drinking and depression. These studies suggest that summed coping provides a fairly consistent and predictable association with different indices of psychopathology.

5. Measurement of Internal-External Control

The Children's Nowicki and Strickland Internal-External control scale (CNSIE) (1973) is a paper-and-pencil measure consisting of 40-items that are answered either "yes" or "no" by placing a mark next to the question. A high score indicates greater externality. The scale was constructed on the basis of Rotter's (1966) definition of the internal-external control of reinforcement dimension. The items of the scale describe reinforcement situations across interpersonal and motivation areas such as achievement, affiliation and dependency (Nowicki & Strickland, 1973). The items are readable at a grade five level and the scale is appropriate up to grade twelve.

Estimates of internal consistency via the split-half method were r = .74 (grades 9, 10, 11) and r = .81 (grade

12). These are considered satisfactory since the test is additive and the items are not arranged according to difficulty. The test-retest reliabilities were .71.

Statistical Analysis

Few studies of adolescent pregnancy decision-making sample enough of the variables associated with decision-making. They often lack the appropriate analytic techniques for identifying the relative influence of variables or the effect of a factor with moderate but stable effect.

Many studies rely on comparisons of group means (t-tests, ANOVA), an assessment of the relationship between two dichotomized variables (chi squared) or the measurement of the strength of relationship between two continuous variables (correlation) (Giblin, Poland & Ager, 1988). These all have a null hypothesis of no relationship between the independent variable and the outcome variable of interest (choice).

A series of bivariate analyses on many variables does not take into account the possible relationships among variables that may contribute to the outcome (choice) and thus confound the relationship between a particular variable and the outcome variable (choice).

The present study considers the relative importance of different factors in discriminating groups, that is, do groups differ in the relative importance of the

assessed variables to their decision? Clinical questions such as, "How much attention should be given to this variable when counselling pregnant adolescents?" are better addressed by multiple regression and discriminant function analysis (Giblin, Poland & Ager, 1988).

III

RESULTS

A difficulty in obtaining an adequate number of participants made it necessary to reconsider the statistical analyses. Multivariate analysis is the appropriate analysis by which to answer the present research question but requires large sample sizes to ensure reliable results. The dilemma of using analysis appropriate to the sample size but inappropriate to the research question or appropriate to the research question but inappropriate to the sample size was resolved in the following manner.

1. An all possible subsets analysis was performed on the 10 variables initially hypothesized to differentiate between the groups. This analysis is considered a glorified "case study" due to the sample size. The results of this analysis provide a description of variables differentiating the abortion and single parenting groups in this sample and cannot be generalized to other groups. The analysis provides only a guideline for discussion and no definitive answers.

2a). A priori considerations based on theoretical, empirical and practical guidelines indicated the following analysis of three variables. Academic performance, as measured by reported school marks, was

predicted as the most important variable for distinguishing adolescents who choose to have an abortion from those who choose to parent. This variable was entered first into the analysis. If school marks provided significant predictive power, social self and then coping self would be entered into the hierarchical equation. The set of variables was tested in this order and when a set was found to be insignificant no further tests were made.

2b). An all possible subsets analysis was performed on the three variables: school marks, social self and coping self.

Participants

Subjects ranged in age from 13 to 19 years (M = 17.3). The ethnic backgrounds represented were Caucasian, Native Indian and Oriental, with Caucasians representing the largest group. There were 22 subjects in the abortion group and 16 subjects in the single parenting group. Selected sociodemographic and attitudinal characteristics of the 38 participants are shown in Table 1. Theory and research indicate 14 variables on which the groups might differ. A problem with multiple comparisons is that advantage is taken of chance. As comparisons increase there is an increase in Type I errors, that is, erroneously rejecting the null

hypothesis (Keppel, 1982, p.145.) The Bonferroni test is recommended as a correction in planned comparisons (Keppel, 1982) and was used on the following comparisons, which describe differences between the abortion and parenting groups.

The girls in the parenting group were more likely to be Catholic, $^{2}(1, N = 38) = 11.09, p \leq .01$. They were one grade below the abortion group in school despite similar ages and reported poorer marks in school in the last two years, $t(36) = 4.22, p \leq .05$.

The parenting girls' partners were older, $t(36) = -4.26, p \leq .05$ and more often perceived as positive about the continued pregnancy, $^{2}(1, N = 38) = 14.83, p \leq .002$ although 44% of the girls choosing to continue the pregnancy reported no current contact with their partners. The girls in the parenting group had initial sexual intercourse sooner after their first date, $t(36) = 3.20, p \leq .05$. than girls in the abortion group.

Attitudes towards abortion clearly differentiated the groups. The parenting group was more unaccepting or very unaccepting of abortion, $^{2}(1, N = 38) = 17.42, p \leq .001$ than the abortion group.

The following scores on psychological variables are summarized in Table 2:

The mean scores on social support (SSQ6) were 14.96 (SSQN) and 4.98 (SSQS) for the abortion group and 20.37 (SSQN) and 5.64 (SSQS) for the parenting group.

The mean scores on social self (OSIQ) were 50.8 (abortion group) and 46.0 (parenting group). The mean scores on the coping self (OSIQ) were 52.0 (abortion group) and 49.3 (parenting group). Using the criterion of emotional disturbance as one standard deviation below the mean on three or more of the 11 OSIQ scales, 21% of the abortion group and 38% of the parenting group scores fell in the maladaptive range.

The mean scores on coping and defending processes (J and N Scales) were 17.75 (summed coping) and 13.20 (summed defense) for the abortion group and 15.69 (summed coping) and 15.68 (summed defense) for the parenting group.

The mean scores on locus of control (CNSIE) were 12.79 (abortion group) and 14.06 (parenting group).

Multivariate Analysis

The correlation matrices for school marks; social self, coping self, family self, psychological self (OSIQ); summed defending, summed coping (J and N Scales); locus of control (CNSIE); social support satisfaction (SSQ6) and partner's age are presented for each group in presented in Table 3 and Table 4. These correlations are presented as background information for interpretation of the regression analyses and are not the focus of this analysis. The levels of significance were determined

without controlling for family-wise error and are reported for the convenience of the reader.

An all-possible sub-sets analysis using the full set of 10 variables, academic performance, partner's age, self-image (social self, coping self, family self and psychological self subscales), social support (SSQ6), coping processes and defending processes (J and N Scales), and locus of control (CNSIE), was done to indicate trends and facilitate discussion. Mallows' Cp values are used to identify the initial "best" subset and adjusted R^2 values are given to indicate variance accounted for. Mallows' Cp judges the performance of the regression equation by the mean square error of the predicted value (Daniel & Wood, 1971). The adjusted square multiple correlation (adj. R^2) measures the ability of each set of variables to predict group membership and the amount of variance in the criterion choice variables (abortion or parenting) that is accounted for by the predictor variables. The results of the 10 variable analysis are not statistically valid due to the small sample size relative to the number of variables.

The 'best' sub-set from the full set of 10 variables consisted of 7 variables: school marks, social self (OSIQ), family self (OSIQ), psychological self (OSIQ), summed coping (J and N Scales), social support satisfaction (SSQ6) and partner's age. This sub-set has

a Mallows' Cp value of 5.73 and adj. $R^2 = .69$, $F(7,22) = 10.29$, $p \leq .0001$, accounting for 69% of the variance between groups.

However, in this analysis of all 10 variables the 'school marks only' subset accounted for 52% of the variance between groups, with the addition of social support increasing this to 57%, and the addition of social support and partner's age increasing variance accounted for to 60%.

The regression analysis of the three variables was conducted by entering school marks first, $F(1,32) = 19.47$, $p \leq .01$ and at this point the analysis stopped. Social self, $F(1,32) =.37$, $p \leq .01$ and coping self, $F(1,32) = .72$, $p \leq .01$ could not be added to the equation due to lack of statistical significance. Jackknifed classification (taking an individual out of the data set and seeing if they can be classified to the correct group) using only school marks correctly classified 81% of subjects in the abortion group and 76.4 % of subjects in the parenting group.

An all possible subsets analysis of the three a priori variables (school marks, social self and coping self) was conducted. The 'best' sub-set from the full set of 3 variables consisted of school marks alone, with Mallows' Cp of 3.84 and adj. $R^2 = .36$, $F(1,32) = 19.47$, $p \leq .0001$, accounting for 36% of the variance between groups. The amount of variance accounted for decreased

with the addition of social self and increased to 39% with the inclusion of the coping self variable.

Table 1

Summary Table of Subject Sociodemographic Variables (Means)

		Abortion (N = 22)	Parenting (N = 16)
Age	Mean:	17	17.6
	SD:	1.3	1.6
Grade	Mean:	10.8	9.7
	SD:	.92	1.3
Marks (scale = 1-7)	Mean:	4.6	2.8
	SD:	1.5	.93
Menarche (years)	Mean:	12.1	12.0
	SD:	1.2	1.1
Gestation (weeks)	Mean:	8.9	24
	SD:	3.0	9.3
Time to Confirm:	Mean:	3.5	6.1
	SD:	3.2	3.3
First Date (age)	Mean:	13.1	13.7
	SD:	1.3	1.8
First Sex (age)	Mean:	14.6	13.8
	SD:	1.1	1.5
Partner's Age	Mean:	19.9	26.1
	SD:	2.8	6.0
Partner's Grade	Mean:	11.5	10.8
	SD:	.86	1.4
Father's Grade	Mean:	10.9	10.4
	SD:	1.8	2.0
Mother's Grade	Mean:	11.1	11.1
	SD:	1.5	1.4
Scale of 1 to 7:			
Knowledge of Abortion:	Mean:	5.45	5.12
	SD:	1.4	1.78
Knowledge of Adoption:	Mean:	3.59	3.94
	SD:	1.22	2.23
Knowledge of Parenting:	Mean:	3.82	4.69
	SD:	1.74	1.74

Table 1- continued

Summary Table of Subject Sociodemographic Variables (Percentages)

		Abortion (N = 22)	Parenting (N = 16)
Ethnic Background:	Caucasian	73%	69%
	Oriental	27%	0%
	Native Indian	10%	31%
Religion:	Catholic	0%	50%
	Protestant	36%	13%
	Other	0%	19%
	No Faith	64%	18%
Attend Religious Services:	Never	64%	31%
	Occasionally	18%	25%
	Once/Month	0%	25%
	2-3X/ Month	0%	11%
	Once/Week	18%	6%
How Religious:	Not at All	55%	35%
	Somewhat	45%	65%
	Very	0%	0%
Birth Control First TIme:	Nothing	27%	44%
	Condom	64%	38%
	The Pill	4%	6%
	Forget	4%	12%
Usual Birth Control Used:	Nothing	8%	44%
	Rhythm	18%	0%
	Withdrawal	27%	0%
	Condom	64%	56%
	The Pill	27%	50%
Birth Control At Conception:	Nothing	46%	63%
	Rhythm	27%	0%
	Withdrawal	0%	13%
	Condom	18%	19%
	The Pill	9%	5%
Usual Use of Birth Control:	All the Time	18%	19%
	Sometimes	55%	31%
	Never	27%	50%

* Percentages do not total 100% due to rounding and multiple categories.

Table 1-continued

Summary Table of Subject Sociodemographic Variables (Percentages)

		Abortion (N '= 22)	Parenting (N = 16)
Reasons For No Use of Birth Control:	No Knowledge	0%	0%
	Access	36%	13%
	Wanted (Unconscious)	0%	40%
	Thought Safe	36%	14%
	Don't Approve	0%	0%
	Took Chance	73%	63%
	Dislike Method	18%	27%
	Sex Less Fun	27%	27%
	Other	27%	53%
Ever Forced to Have Sex:	Yes	36%	50%
Alcohol Use:	Non-User	36%	44%
	Moderate	54%	56%
	Abuse	10%	0%
Drug Use:	Non-User	64%	56%
	Moderate	36%	38%
	Dependence	0%	6%
Time With Partner:	No Contact	10%	44%
	1-7X/Week	77%	37%
	Live Together	13%	19%
Partner's Education:	No Post	50%	67%
	College	36%	27%
	University	9%	6%
Partner's Work/School:	Work (F/T)	63%	53%
	Work (P/T)	28%	6%
	Student (F/T)	37%	0%
	Student (P/T)	18%	0%
	Not Working	0%	33%
Partner Aware of Pregnancy:	Yes	86%	88%
If No, Will Tell:	Yes	34%	0%

Table 1-continued

Summary Table of Subject Sociodemographic Variables (Percentages)

		Abortion (N = 22)	Parenting (N = 16)
Partner's Attitude to Abortion:	Very Unaccepting	4%	6%
	Unaccepting	4%	19%
	Neutral	14%	19%
	Accepting	24%	19%
	Very Accepting	33%	6%
	Not Sure	19%	31%
Partner's Attitude to Parenting:	Very Unaccepting	4%	20%
	Unaccepting	32%	0%
	Neutral	18%	6%
	Accepting	4%	13%
	Very Accepting	0%	53%
	Not Sure	41%	6%
Relationship With Partner:	Improved A Lot	3%	7%
	Improved Somewhat	36%	20%
	Is The Same	55%	33%
	Is Worse	3%	33%
	Is A Lot Worse	3%	7%
Parent's Marital:	Married	55%	33%
	Separated	27%	6%
	Divorced	27%	60%
Father's Education:	No Post	55%	50%
	College	0%	43%
	University	45%	7%
Mother's Education:	No Post	73%	66%
	College	18%	27%
	University	9%	7%
Father Aware of Pregnancy:	Yes	11%	64%
If No, Will Tell:	Yes	44%	50%
Father's Attitude to Abortion:	Very Unaccepting	47%	50%
	Unaccepting	0%	0%
	Neutral	5%	0%
	Accepting	10%	6%
	Very Accepting	5%	6%
	Not Sure	32%	38%

Table 1-continued

Summary Table of Subject Sociodemographic Variables (Percentages)

		Abortion (N = 22)	Parenting (N = 16)
Father's Attitude to Parenting:	Very Unaccepting	32%	6%
	Unaccepting	10%	6%
	Neutral	0%	31%
	Accepting	0%	7%
	Very Accepting	5%	19%
	Not Sure	53%	31%
Relationship With Father:	Improved A Lot	0%	5%
	Improved Somewhat	0%	38%
	Is The Same	84%	38%
	Is Worse	16%	19%
	Is A Lot Worse	0%	0%
Mother Aware of Pregnancy:	Yes	24%	73%
If No, Will Tell:	Yes	24%	50%
Mother's Attitude to Abortion:	Very Unaccepting	19%	40%
	Unaccepting	5%	20%
	Neutral	24%	14%
	Accepting	9%	6%
	Very Accepting	10%	0%
	Not Sure	33%	20%
Mother's Attitude to Parenting:	Very Unaccepting	19%	7%
	Unaccepting	14%	0%
	Neutral	19%	33%
	Accepting	5%	20%
	Very Accepting	5%	13%
	Not Sure	38%	27%
Relationship With Mother:	Improved A Lot	0%	20%
	Improved Somewhat	10%	20%
	Is The Same	91%	60%
	Is Worse	9%	0%
	Is A Lot Worse	0%	0%
Difficulty of Decision:	Very Difficult	14%	0%
	Difficult	36%	23%
	Easy	41%	33%
	Very Easy	9%	44%

Table 1-continued

Summary Table of Subject Sociodemographic Variables (Percentages)

		Abortion (N = 22)	Parenting (N = 16)
Satisfaction with Decision:	Very Satisfied	18%	94%
	Satisfied	46%	6%
	Neutral	27%	0%
	Dissatisfied	0%	0%
	Very Dissatisfied	9%	0%
Partner's Influence:	Very Much	0%	25%
	Somewhat	46%	31%
	A Bit	36%	0%
	Not At All	18%	44%
Parent's Influence:	Very Much	1%	19%
	Somewhat	0%	0%
	A Bit	27%	25%
	Not At All	72%	56%
Friends' Influence:	Very Much	4%	12%
	Somewhat	18%	13%
	A Bit	5%	0%
	Not At All	73%	75%
Your Attitude to Abortion:	Very Unaccepting	5%	56%
	Unaccepting	0%	19%
	Neutral	36%	0%
	Accepting	36%	25%
	Very Accepting	23%	0%
Your Attitude to Parenting:	Very Unaccepting	4%	0%
	Unaccepting	9%	0%
	Neutral	46%	6%
	Accepting	27%	56%
	Very Accepting	14%	38%

Table 2

Summary Table of Subject Psychological Variables

		Abortion (N = 22)	Parenting (N = 16)
Psychological Self			
1-Impulse Control	Mean:	50.71	43.93
	SD:	16.74	17.47
2-Emotional Tone	Mean:	48.48	36.46
	SD:	15.65	20.25
3-Body & Self Image	Mean:	44.19	44.60
	SD:	17.77	21.20
Social Self			
1-Social Relationships	Mean:	49.38	38.64
	SD:	15.71	19.03
2-Morals	Mean:	52.76	46.07
	SD:	15.21	14.60
3-Vocational-Educational Goals	Mean:	50.24	53.27
	SD:	11.66	14.52
Family Self			
1-Family Relationships	Mean:	41.24	39.67
	SD:	17.74	10.90
Coping Self			
1-Mastery of the External World	Mean:	53.29	47.79
	SD:	18.82	20.09
2-Psychopathology	Mean:	48.33	51.14
	SD:	15.64	11.51
3-Superior Adjustment	Mean:	54.24	48.93
	SD:	11.46	17.71

Table 2
(continued)

Summary Table of Subject Psychological Variables

		Abortion (N = 22)	Parenting (N = 16)
Social Support			
Social Support (Number)	Mean:	14.96	20.37
	SD:	5.49	13.11
Social Support (Satisfaction)	Mean:	4.98	5.64
	SD:	.99	.43
Summed Coping	Mean:	17.75	15.69
	SD:	3.23	3.07
Summed Defense	Mean:	13.20	15.68
	SD:	4.24	3.36
Locus of Control	Mean:	12.79	14.06
	SD:	4.64	5.25

Table 3

Correlation matrix for school marks, family self coping self, social self, psychological self, summed defending, summed coping, locus of control, and social support satisfaction for the abortion group (N = 21).

	MKS	FS	CS	SS	PS	SD	SC	LOC	SSQS
MKS	1.0								
FS	.18	1.0							
CS	.36	.76**	1.0						
SS	.12	.46*	.69**	1.0					
PS	.05	.59**	.81**	.89**	1.0				
SD	-.52*	-.56**	-.61**	-.39	-.44*	1.0			
SC	-.11	-.24	-.17	-.33	-.24	.30	1.0		
LOC	-.34	-.35	-.42	-.47*	-.34	.47*	.38	1.0	
SSQS	-.10	.35	.24	.26	.23	-.36	-.31	-.46*	1.0

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

MKS = school marks
FS = family self (OSIQ subscale)
CS = coping self (OSIQ subscale)
SS = social self (OSIQ subscale)
PS = psychological self (OSIQ subscale)
SD = summed defending (J and N Scales)
SC = summed coping (J and N Scales)
LOC = locus of control (CNSIE scale)
SSQS = social support (SSQ6 satisfaction subscale)

Table 4

Correlation matrix for school marks, family self coping self, social self, psychological self, summed defending, summed coping, locus of control, and social support satisfaction for the parenting group (N = 15).

	MKS	FS	CS	SS	PS	SD	SC	LOC	SSQS
MKS	1.0								
FS	-.16	1.0							
CS	.24	.46	1.0						
SS	.05	.70**	.76**	1.0					
PS	.57*	.42	.70**	.55*	1.0				
SD	-.52*	-.43	-.73**	-.59*	-.75**	1.0			
SC	-.13	-.36	.27	.02	.16	-.30	1.0		
LOC	.03	-.40	-.50	-.48	-.25	.27	.32	1.0	
SSQS	.20	.42	.13	.45	.28	-.07	-.27	-.02	1.0

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

MKS = school marks
FS = family self (OSIQ subscale)
CS = coping self (OSIQ subscale)
SS = social self (OSIQ subscale)
PS = psychological self (OSIQ subscale)
SD = summed defending (J and N Scales)
SC = summed coping (J and N Scales)
LOC = locus of control (CNSIE scale)
SSQS = social support (SSQ6 satisfaction subscale)

IV

DISCUSSION

1. The hypothesis that the groups could be discriminated by some combination of the following sociodemographic and psychological variables, academic performance, partner's age, self-image (social self, coping self, family self and psychological self), social support, coping processes, defense processes and locus of control, was not tested due to an insufficient sample size. The results of this regression analysis are best considered as a "case study" and provide material for speculation and discussion.

2. The hypothesis that the abortion and parenting groups would be best discriminated by three specific variables (academic performance, social self (OSIQ) and coping self (OSIQ)) was partially supported in this study. The variable of academic performance, as measured by self-reported school marks in the last two years, discriminated between groups in the regression analysis. However, social self and coping self did not improve the ability of school marks to discriminate between groups.

The significance of academic performance in differentiating the two groups fits with consistent empirical support for a relationship between school performance and pregnancy choice (Abrahamse, Morrison & Waite, 1988; Card & Wise, 1978; Eisen, Zellman,

Leibowitz, Chow & Evans, 1983; Evans, Selstad & Welcher, 1976; Fischman, 1977; Hansen, Stroh & Whitaker, 1978; Kramer, 1975). Adolescents doing well in school choose abortion and adolescents not doing as well choose to parent. The reasons that academic performance is such a strong and consistent predictor of the adolescent's choice needs to be more fully explored.

One hypothesis would be that those doing well in school have educational and career aspirations that provide a sense of identity and direction. The adolescent doing less well in school may be seeking identity and direction which the role of parent could fulfill.

It is also possible that a third variable which contributes to poor academic performance may directly contribute to the pregnancy decision. The small sample size of this study limits answers but does provide testable questions: for example, the parenting group were more likely to have parents who were divorced and older partner's than the abortion group. It is possible that these, or other differentiating factors, have contributed to both poor academic performance and the choice to parent.

The lack of success of the self-image variables (coping self and social self) in predicting pregnancy decisions is contrary to theoretical expectations which indicate that the adolescent's sense of herself should

influence her decision. The failure of social self and coping self scales to differentiate between the groups may be due to conceptual and methodological limitations of the present study.

The concept of "self" is somewhat paradoxical: the self is an intuitively obvious and yet elusive concept. It is difficult to define the essence of the self and distinctions in definition guide measurement. The conceptual difference between self-image and identity in adolescence is that, while self-image exists at any developmental point, identity involves a process which continues to late adolescence or beyond. For example, a 2 year-old child has a self-image but not an identity. This distinction indicates self-image as the more developmentally appropriate concept to assess. Erikson's (1956) "identity", as expanded and operationalized by Marcia (1966), appears more appropriate for older adolescents or young adults. However, it is possible that conceptually, identity, rather than self-image would be more appropriate to assess the pregnant adolescent and her decision-making.

The methodology in the present study may have limited the utility of self-image in differentiating abortion and parenting groups. The decision to consider mean scores on the social self and coping self scales may have contributed to an erroneous picture of self-image. If a mean score approach is to be used it may be best to

use the single total OSIQ score, rather than individual self (social, coping, psychological, family) scores.

The total OSIQ score was not used in this study for two reasons. First, it was hypothesized that the adolescents choosing abortion or parenting would have different, but not necessarily "better" self-images. Thus, the total scores might be very similar although patterns between the five "self" scales might vary. It was hypothesized that social self and coping self would best distinguish groups, particularly social self, which consists of social relationships, morals and vocational-educational goals subscales. Second, the total OSIQ score was not used due to a methodological problem. The sexual self, one of the five self scales was found not to score in a linear way and could not be used in multivariate analysis (Gruber, personal communication, September, 1991).

This study indicates that the use of mean scores, either total OSIQ scores or individual scale scores may obfuscate information. The standard deviations on most of the 11 subscales were above 15, which indicates a considerable range in functioning among individuals. By using mean scores, information about substantial differences may have been lost.

Offer, Ostrov, Howard and Atkinson (1988) found that 21% of adolescent girls in a female sample of 170 were classified as emotionally disturbed to a meaningful

degree. Their criterion of disturbance is one standard deviation below the mean on three or more of the eleven scales. This may be a more appropriate way of considering scores since mean scores on the various scales may obscure a clear picture of how adolescents are feeling about themselves.

Using this criterion, 21% of the abortion group and 38% of the delivery group in the present study score in the maladaptive range. This level of maladjustment in the delivery group was not anticipated and may be explained by Coleman's (1978) attempt to reconcile the classic turmoil view of adolescence with the empirical portrayal of calm adjustment for the majority of adolescents.

He suggests that the adolescent avoids extreme stress by dealing with one transition at a time and for most adolescents these transitions are spread out over a period of time. In support of this view, Kokenes (1974) found that between grade six and eight a different concern was paramount each year. When disturbance occurs it may be because the adolescent must manage multiple areas of change at once (Coleman, 1978) and this may explain the relatively high level of maladjustment (38%) in self-image scores of the parenting group.

Self-image has been successful in accounting for variance in research in adolescent medical management but not in studies of adolescent parenthood or substance

abuse (Giblin, Poland & Ager, 1988). Possibly the complex and contingent conditions associated with adolescent pregnancy mask or eliminate the predictive value of self-image.

The correlations and regression analysis of all ten variables, while statistically indefensible, suggest the following possible explanations for social support (SSQS), coping and defending (J and N Scales) and locus of control (CNSIE) variables in relation to the pregnancy decisions of adolescents.

Social support (SSQS) is not highly correlated with any other variables in either the parenting or abortion groups and appears to provide useful discriminating information. The parenting adolescents were at an average 24 weeks gestation when they completed the questionnaires and their perceived satisfaction with social support may be a direct result of being pregnant. The higher satisfaction with social support in the parenting group in this study is consistent with previous research (Bracken, Klerman & Bracken, 1978). This satisfaction may be a result of the pregnancy rather than a variable contributing to the decision to continue the pregnancy. It is less likely that having an abortion would increase satisfaction with social support since many adolescents share this information with a limited number of people.

The contribution of summed coping and summed defense measures to the pregnancy decision is still unclear. Summed coping was not significantly related to any of the other measures. This suggests some lack of construct validity since it could be expected to relate to the OSIQ coping self. There was a significant ($p \leq .01$) negative relationship between summed defense and the coping self OSIQ subscale for both groups, which merits further attention.

There are no age-appropriate norms for these scales but both abortion and parenting groups scored higher on the defense scales and lower on the coping scales than the norms for college women (the summed coping and summed defending norms for college women are 19.28 (SD = 2.82) and 10.59 (SD = 2.84) respectively).

The utility of the J and N Scales and/or the use of a coping and defending construct in differentiating adolescents choosing abortion or parenting was not demonstrated in this study. The most direct and accurate, although still approximate, way to measure ego actions is through interviews with a trained clinician. The J and N Scales are less direct and perhaps less accurate in this measurement. The comparison of coping and defending processes in pregnant adolescents during the decision-making phase and non-pregnant adolescents (or pregnant adults) could provide interesting

information about the process of decision-making in a stressful time for the adolescent girl.

The locus of control (CNSIE) scores did not contribute to the differentiation of abortion and parenting groups. This was not unexpected since the original decision to use the CNSIE control scale was based disproportionately and inappropriately on the empirical literature and inadequate theoretical assumptions. The locus of control measure was maintained because it has been shown to provide significant prediction in comparing groups, although the level of that prediction in a specific situation is limited.

Although the locus of control construct is imbedded in social learning theory it has predominantly been of interest as a measure of relatively stable, cross-situational, individual differences. This use of locus of control as a personality trait accounts for 90 percent of publications (Rotter, 1990) but was not appropriate to this study.

The early scales were not designed to assess a global, stable personality trait (locus of control) but to provide a working tool in social learning theory that allowed for interpretation of people's behaviours within situations. Internal-external beliefs are generalized expectancies that do reflect individual differences in the way in which people characteristically view and interact with the world. The limitation in considering

generalized expectancy as a personality trait is that generalized expectancy is only one variable that enters into the prediction of behaviour.

The locus of control construct is best used as a moderating variable within a social learning framework; when used as a "personality variable" locus of control is designed to produce a low level of prediction across a wide range of potential situations. It is unlikely that locus of control will account for a significant amount of variance in health decisions (Wallston, Wallston & DeVellis, 1978).

The CNSIE control scale, like personality measures, is limited to the conditions of testing and the purpose of the research; for precise prediction to occur the reinforcement value and the psychological situation should have been taken into account. The locus of control variable may have value in pregnancy resolution research but was inappropriate to this methodological design.

The religious and attitudinal variables, while not the focus of the multivariate analysis, provide support for past research and suggest future questions. The girls in the parenting group were more likely to be Catholic, consistent with past research (Bracken, Klerman & Bracken, 1978; Kramer, 1975). The Catholics did not attend religious services more frequently or describe themselves as more religious than others. This suggests

that the religious label (ie. Catholic, Protestant, Jewish) may be more indicative of a cultural effect than a moral or spiritual variable. Being Catholic seems to be a strong predictor of the choice to parent; what "being Catholic" means invites further study focused specifically on the role of religion in pregnancy deccion-making.

Future research on decision-making in pregnant adolescents may benefit from the experience and knowledge gained in this study. The social sensitivity of the issues of adolescent pregnancy, abortion and parenting cannot be underestimated. Ethical concerns, values and biases are encountered from the formulation of the initial research questions through reviews of the literature, community interactions, subject recruitment and evaluation and discussion of results. It is difficult to avoid the pitfall of regarding one choice as better than the other and taking this personal belief as the starting point for discussion. In this framework the well-adjusted adolescent will make the "right" choice. It is possible to approximate a definition of "well-adjusted" but the "right" choice cannot be defined particularly given the lack of consensus in the public domain regarding legal and moral issues of abortion.

The process of pregnancy decision-making is multidimensional and the complexity and richness of this has been inadequately conceptualized (Smetana, 1981).

The sheer number of variables that have been associated with pregnancy resolution attests to the complexity of the process. The focus of this study was on sociodemographic and psychological variables that influence decision-making in adolescent pregnancy. This focus precluded discussion of the cognitive (see Ambuel, 1991; Orr, Brack & Ingersoll, 1988) and moral (see Gilligan, 1980; Smetana, 1981; Smetana & Adler, 1980) aspects of adolescent decision-making, aspects that may contribute significantly to differentiating between groups.

The pregnancy decision-making process may be too intimate, fluid or complex to be captured by measurement tools and a complete description or understanding of the process is likely unobtainable. However, an increased understanding can provide information useful to theory-building of female adolescent development and to clinical work with pregnant teens.

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APPENDIX

DEMOGRAPHIC AND BACKGROUND INFORMATION #1

Date:

SECTION 1: SOME FACTS ABOUT YOURSELF

This section asks you some questions about yourself including some questions that may seem personal. Remember that none of your answers will ever be put together with your name. Please try to answer each one. Your answers will help us very much.

1. When were you born? ______________________
   day month year

2. For most of your life have you lived:

   1. in a rural area (less than 2500 people)
   2. in an urban area (more than 2500 people)

3. Your ethnic background is:

   1. Black
   2. Caucasian (white)
   3. East Indian
   4. Hispanic
   5. Native Indian
   6. Oriental
   7. Other (__________)

4. a) Please circle the last grade you successfully completed.

   1 2 3 4 5 6 7 8 9 10 11 12 13

   b) In general, what were your marks like during your last two years in school?

   1. D's to F's
   2. C's to D's
   3. C's
   4. B's to C's
   5. B's
   6. A's to B's
   7. A's

c) Have you ever attended community college or university?

1. no
2. yes, community college for ___ year(s)
3. yes, university for ___ year(s)

5. Are you currently,

1. working full-time only
2. working full-time, student part-time
3. working part-time only
4. working part-time, student part-time
5. working part-time, student full-time
6. full-time student
7. not working
8. other ________________

6. If you are not presently working, please go to question 7. If you are now working, what type of work do you do?

____

____

7. What is your religion?

1. Catholic
2. Protestant
3. Other (specify) ________________________
4. no particular faith

8. How often do you attend religious services?

1. never or almost never
2. a few times a year, as on special occasions or important religious holidays
3. about once a month
4. about 2 or 3 times a month
5. about once a week or more

9. How religious are you? Would you say you are:

1. not at all religious
2. somewhat religious
3. very religious

10. Not counting yourself, how many people currently live with you? ____________ other people live with me.

11. Please circle all the people currently living with you. If you live alone please skip to question 12.

1.	mother	8.	uncle
2.	father	9.	grandmother
3.	stepmother	10.	grandfather
4.	stepfather	11.	other male relative
5.	sister(s)	12.	other female relative
6.	brother(s)	13.	roommate(s)
7.	aunt	14.	anyone not listed? (Who) ______________________

12. Please read over the list below and circle all the people who lived with you while you were growing up.

1.	mother	8.	uncle
2.	father	9.	grandfather
3.	stepmother	10.	grandmother
4.	stepfather	11.	other male relative
5.	brother(s)	12.	other female relative
6.	sister(s)	13.	roommate(s)
7.	aunt	14.	anyone not listed? (Who) ______________________

13. How old were you when you first started your menstrual period? _______________
(age)

14. Approximately, when was the first day of your last period before your pregnancy?

_____________ _______________
(day) (month)

15. How many weeks after you missed your period did you wait before seeing the doctor? ______________
(weeks)

16. How old were you when you first began to date? (Please circle).

0. I have never dated

I was 7 8 9 10 11 12 13 14 15 16 17 18 19 years old.

17. How old were you the first time you had sex (sexual intercourse)? Please circle.

I was 7 8 9 10 11 12 13 14 15 16 17 18 19 years old.

18. Have you ever been forced to have sex when you didn't want to ?

    1. yes
    2. no

    If yes, please answer questions 19, 20 and 21; if no, please go to question 22.

19. How old were you the first time you were forced to have sex when you didn't want to?

    ____

20. How many times have you been forced to have sex when you didn't want to?

    ____

21. Who has forced you to have sex when you didn't want to?

    1. father
    2. stepfather
    3. brother
    4. grandfather
    5. uncle
    6. friend of family
    7. date
    8. boyfriend
    9. anyone not listed? (Who?)

    ____

22. Please think back to the <u>first time</u> you had sex (sexual intercourse). Did you or your partner use any of the following birth control methods:
    (Circle as many as apply)

    1. no method used
    2. rhythm (safe period)
    3. withdrawal (pulling out)
    4. douche (washing with water, etc.)
    5. condom (safe, rubber)
    6. diaphragm
    7. cervical cap
    8. foam, jelly or cream
    9. IUD (loop, copper 7, etc.)
    10. oral contraceptives (the Pill)
    11. morning-after pill
    12. other (specify) __________________________
    13. don't remember

23. Except for the first time, did/do you and your partner <u>usually</u> use any of the following: (circle all that apply)

    1. we don't use anything
    2. rhythm (safe period)
    3. withdrawal (pulling out)
    4. douche (washing out with wate, etc.)
    5. condom (safe, rubber)
    6. diaphragm
    7. cervical cap
    8. foam, jelly or cream
    9. IUD (loop, copper 7, etc.)
    10. oral contraceptive (the Pill)
    11. other (specify) ______________________

24. At the time you became pregnant, were you or your partner using any of the following: (circle as many as apply)

    1. no method used
    2. rhythm (safe period)
    3. withdrawal (pulling out)
    4. douche (washing with water, etc.)
    5. condom (safe, rubber)
    6. diaphragm
    7. cervical cap
    8. foam, jelly or cream
    9. IUD (loop, copper 7, etc.)
    10. oral contraceptive (the Pill)
    11. other (specify) ______________________

25. In general would you say you or your partner <u>usually</u> use birth control:

    1. all of the time
    2. some of the time
    3. none of the time

26. People do not use birth control regularly for many reasons. Below are some reasons people have given for not using birth control. Could you please check whether these reasons are <u>true</u> or <u>not true</u> for you.

	TRUE FOR ME	NOT TRUE FOR ME
	________	________
a) I don't know about birth control methods		
b) Birth control was not easily or readily available		
c) I wanted to get pregnant		
d) I thought it was a safe time		
e) Methods of birth control are too much bother		
f) I do not approve of birth control		
g) I simply took a chance I would not get pregnant		
h) My partner and/or I do not like the methods available		
i) Sex is not as much fun when using birth control		
j) Other (please specify) ________________________		

27. How would you describe your use of alcohol?

    1. non-drinker
    2. moderate use
    3. abuse
    4. dependence
    5. other ____________________________

28. How would you describe your use of non-prescribed drugs?

    1. non-user
    2. moderate use
    3. abuse
    4. dependence
    5. other ____________________________

29. What type(s) of drugs have you used?

____

____

SECTION 2: SOME FACTS ABOUT YOUR PARTNER

This section asks some questions about your partner with whom this pregnancy occurred. Please remember that your answers are completely private. We do not want to know who he is and at no time will your name be put together with your answers.

30. Did this pregnancy result from being forced to have sex when you did not want to?

    1. yes
    2. no

31. How old is your partner? __________ years old.

32. a) Please circle the last grade he successfully completed.

    1 2 3 4 5 6 7 8 9 10 11 12 13

    b) Has he attended community college or university?

    1. no
    2. yes, community college for ____ years
    3. yes, university for ___ years

33. At the present time is he:

    1. working full-time only
    2. working full-time and student part-time
    3. working part-time only
    4. working part-time and student part-time
    5. working part-time and student full-time
    6. full-time student
    7. not working
    8. other ________________________________

34. Please tell us what kind of work he does. If he is not currently working, what type of work did he do at his last job?

____

35. How much time do you and your partner spend together?

1. we have no contact at all
2. I see him about once a month
3. I see him 2-3 times a month
4. I see him at least once a week
5. I see him more than once a week
6. I see him every day
7. we are presently living together

36. a) Does he know you are pregnant?

1. yes
2. no

b) If <u>no</u>, do you plan to tell him?

1. yes
2. no

37. Was this pregnancy something:

1. you <u>both</u> planned?
2. he planned?
3. you planned?
4. that happened and was not planned?

38. How does your partner feel about abortion as a possible choice when an unplanned pregnancy occurs?

1. very unaccepting
2. unaccepting
3. neutral
4. accepting
5. very accepting
6. you're not sure how he feels about abortion

39. How does your partner feel about adoption as a possible choice when an unplanned pregnancy occurs?

1. very unaccepting
2. unaccepting
3. neutral
4. accepting
5. very accepting
6. you're not sure how he feels about adoption

40. How does your partner feel about marriage or a common-law relationship as a possible choice?

   1. very unaccepting
   2. unaccepting
   3. neutral
   4. accepting
   5. very accepting
   6. you're not sure how he feels about marriage or a common-law relationship

41. Because of this pregnancy my relationship with my partner:

   1. has improved a great deal
   2. has improved somewhat
   3. is the same
   4. has become worse
   5. has become a great deal worse

SECTION 3: FAMILY HISTORY

Now we would like to ask some questions about your parent(s) (or adoptive parents) and your relationship with them. (If you are adopted, please answer the following questions by thinking about your adoptive parents.) Please circle.

42. Are both your parents alive now?

   1. yes
   2. no

43. During your life have your parents:

   1. divorced?
   2. separated?
   3. remain married?

44. If one or both of your parents died, please fill in the sentence that tells us which parent died and how old you were when this happened.

   1. my <u>mother</u> died when I was _____ years old
   2. my <u>father</u> died when I was _____ years old

   If there is a father <u>or</u> someone you think of as a father in your family please answer questions 45 to 51 by thinking of that person. Otherwise, please go to question 52.

45. a) What was the last grade your father completed?

   1 2 3 4 5 6 7 8 9 10 11 12 13

b) Did he attend community college or university?

1. no
2. yes, community college for ____ years
3. yes, university for _____ years

46. What is his usual job called? (Please describe what he does/did at that job).

____

____

47. a) Does your father know you are pregnant?

1. yes
2. no

b) If no, do you plan to tell him?

1. yes
2. no

48. How does your father feel about abortion as a possible choice when an unplanned pregnancy occurs?

1. very unaccepting
2. unaccepting
3. neutral
4. accepting
5. very accepting
6. not sure how he feels about abortion

49. How does your father feel about adoption as a possible choice when an unplanned pregnacy occurs?

1. very unaccepting
2. unaccepting
3. neutral
4. accepting
5. very accepting
6. not sure how he feels about adoption

50. How does your father feel about single parenting as a possible choice when an unplanned pregnancy occurs?

1. very unaccepting
2. unaccepting
3. neutral
4. accepting
5. very accepting
6. not sure how he feels about single parenting

51. Because of this pregnancy my relationship with my father:

1. has improved a great deal
2. has improved somewhat
3. is the same
4. has become worse
5. has become a great deal worse

If there is a mother or someone you think of as a mother in your family, please answer questions 52 to 58 by thinking of that person. Otherwise, please go to question 59.

52. a) What was the last grade your mother completed? (Please circle)

1 2 3 4 5 6 7 8 9 10 11 12 13

b) Did she attend community college or university?

1. no
2. yes, community college for _____ years
3. yes, university for ______ years

53. What is/was her usual job called? (Please describe what she does/did at that job)

____

____

54. a) Does your mother know you are pregnant?

1. yes
2. no

b) If no, do you plan to tell her?

1. yes
2. no

55. How does your mother feel about abortion as a possible choice when an unplanned pregnancy occurs?

1. very unaccepting
2. unaccepting
3. neutral
4. accepting
5. very accepting
6. not sure how she feels about abortion

56. How does your mother feel about adoption as a possible choice when an unplanned pregnancy occurs?

1. very unaccepting
2. unaccepting
3. neutral
4. accepting
5. very accepting
6. not sure how she feels about adoption

57. How does your mother feel about single parenting as a possible choice when an unplanned pregnancy occurs?

1. very unaccepting
2. unaccepting
3. neutral
4. accepting
5. very accepting
6. not sure how she feels about single parenting

58. Because of this pregnancy my relationship with my mother:

1. has improved a great deal
2. has improved somewhat
3. is the same
4. has become worse
5. has become a great deal worse

SECTION 4: SOME QUESTIONS ABOUT YOUR DECISION

This section asks some questions about your decision to become a single parent, to give your child up for adoption or to have an abortion.

59. What decision have you reached concerning your pregnancy?

1. I have chosen abortion
2. I have chosen adoption
3. I have chosen to become a single parent

60. How difficult has is been for you to reach your decision?

1. very difficult
2. difficult
3. easy
4. very easy

61. How satisfied are you with your decision (adoption, abortion or single parenting) about your pregnancy?

1. very satisfied
2. satisfied
3. neutral
4. dissatisfied
5. very dissatisfied

62. How much did your partner influence your decision?

1. very much
2. somewhat
3. a bit
4. not at all

63. How much did your parents influence your decision?

1. very much
2. somewhat
3. a bit
4. not at all

64. How much did your friend(s) influence your decision?

1. very much
2. somewhat
3. a bit
4. not at all

65. How do you feel about abortion <u>in general</u> ?

1. very unaccepting
2. unaccepting
3. neutral
4. accepting
5. very accepting

66. How do you feel about adoption <u>in general</u> ?

1. very unaccepting
2, unaccepting
3. neutral
4. accepting
5. very accepting

67. How do you feel about single parenting <u>in general</u> ?

1. very unaccepting
2. unaccepting
3. neutral
4. accepting
5. very accepting

68. How much do you feel you know about the process of abortion?
(Please circle the closest number)

1	2	3	4	5	6	7
nothing			average amount			a great deal

69. How much do you feel you know about the process of adoption?
(Please circle the closest number)

1	2	3	4	5	6	7
nothing			average amount			a great deal

70. How much do you feel you know about the process of being a single parent?
(Please circle the closest number)

1	2	3	4	5	6	7
nothing			average amount			a great deal

Thank you very much for your time and cooperation. If you have questions about anything (specific questions about the questionnaires, general questions about the overall study etc.) please feel free to call me, Barbara Chambers, at 687-6004.