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Andrews University

School of Education

TEENAGE PREGNANCY IN ST. KITTS-NEVIS
PSYCHOSOCIAL AND FAMILIAL FACTORS

A Dissertation

Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

Ermine T. Browne Leader

October 1997

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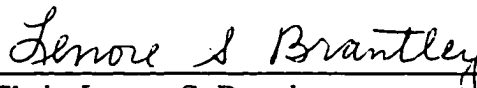
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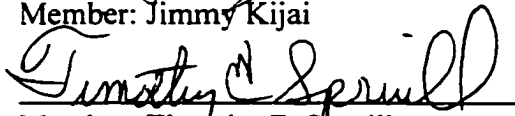
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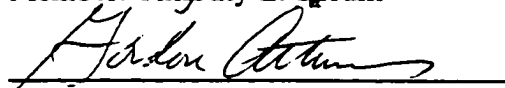
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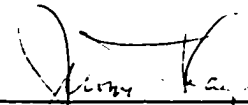

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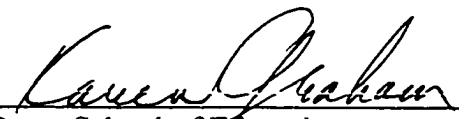

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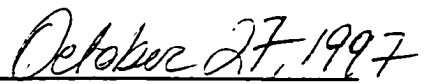

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ABSTRACT

TEENAGE PREGNANCY IN ST. KITTS-NEVIS
PSYCHOSOCIAL AND FAMILIAL FACTORS

by

Ermine T. Browne Leader

Chair: Lenore S. Brantley

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: TEENAGE PREGNANCY IN ST. KITTS-NEVIS: PSYCHOSOCIAL AND FAMILIAL FACTORS

Name of researcher: Ermine T. Browne Leader

Name and degree of faculty chair: Lenore S. Brantley, Ed.D.

Date completed: October 21, 1997

Problem

This study was conducted to examine some of the factors that are related to teenage pregnancy in St. Kitts-Nevis. It focused on the relationship between teenage pregnancy and father absence/presence, intergenerational teenage pregnancy, childhood sexual abuse, and domestic violence. A young girl's view of her relationship with both parents, the self-esteem of respondents, and their level of attendance and participation in church-related activities were also studied.

Method

Two instruments were incorporated into the questionnaire administered to females

in St. Kitts and Nevis between the ages of 12 and 21, some of whom had experienced a pregnancy, and others who had not. These groups were called pregnant and nonpregnant groups. The Coopersmith Self-Esteem Inventory (SEI) was used to measure self-esteem. The Factors Related to Teenage Pregnancy Questionnaire gathered data pertinent to the research questions and other demographic information. Of the 319 respondents, approximately 71% came from St. Kitts and 29% from Nevis.

Results

Significant differences were found between both groups on four of the eight variables in the Attitude to Father cluster, and on three of the eight on the Attitude to Mother cluster, with the nonpregnant group giving more positive evaluations of their relationships with parents than the other group. No significant relationship was established between father presence/absence and teenage pregnancy and none was found between teenage pregnancy and intergenerational teenage pregnancy. Significant differences between groups were found on two of the six variables in the Domestic Violence cluster, and a significant relationship was found between childhood sexual abuse and early pregnancy. All five variables in the Attitude to Church factor produced significant differences, but no significant difference was found between the self-esteem scores of both groups.

Conclusions

Nonpregnant respondents evaluated their relationships with father and mother more positively than their counterparts. Both groups' experience of father absence/presence was comparable. The data suggest that intragenerational influences on

teenage pregnancy are stronger than intergenerational patterns. Domestic violence occurs more frequently in the experience of the pregnant group, as did childhood sexual abuse in which case grandfathers and fathers were the least likely perpetrators and uncles and brothers were the main perpetrators. The nonpregnant group placed higher value on their religious experience, but levels of self-esteem were comparable for both groups.

To the memory of my mother, Josephine, who taught me the value of setting high educational goals, to my husband, Charles, for his persistent encouragement on the darkest of days when completing this research seemed impossible, and to our daughters Colette, Zinette, and Josette, whose innocence and love for life bespeak the evil in the society in which we must raise them

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ACKNOWLEDGMENTS

I wish to express thanks to the Permanent Secretary, Mr. Ian Hodge, and the Minister, Dr. A. Martin, in the Ministry of Health and Women's Affairs in St. Kitts-Nevis for partially funding this project; to Mr. John White in the Ministry of Education who granted the initial permission to involve the high schools, and to Mr. Joseph Halliday and Mr. Conrad Liburd and their group of helpers who collected the data.

Thanks to my sister Jennifer, cousin Eloise, uncle Claudius, my many aunts, my in-laws, Pretoria St. Juste, Thora Greaves, Sonya Gray, Dr. Jonathan Lewis, and Dr. Winston and Mrs. Patricia Seale for believing in me and spurring me on during very uncertain times at Andrews, and to Carolyn Kowarsch who has been my faithful encourager and prayer partner over the past four years.

Thank you, Dr. Lenore Brantley, for serving as my Chair again, Dr. Jimmy Kijai for working with me at each stage of writing this document, and to Drs. Timothy Spruill and Gordon Atkins for being members of my committee. Special thanks to Dr. Donna Habenicht for serving on my committee, for being my mentor and guide, and for her unfailing interest in my personal and educational development.

To my other teachers, especially Dr. Rick Kosinski, for their interest and timely encouragement, and to numerous other relatives and friends who were my cheer leaders throughout the journey. Above all, I thank Almighty God for making this possible.

CHAPTER I

BACKGROUND AND INTRODUCTION

Adolescence is a period of experimentation. It is the time in a youth's life when, in addition to coming to grips with the confusion and challenges of a maturing, sometimes awkward body, he/she seeks answers for the many questions regarding identity versus role confusion, according to the psychosocial stages of development. It is also a period when the youth seek independence from parental control. The developmental tasks for adolescence (12 to 18 years) are: physical maturation, formal operations, emotional development, membership in the peer group, and sexual relationships. The psychosocial crisis of this group is group identity versus role confusion, of which peer pressure is the central process (Newman & Newman, 1991).

Left to themselves, without appropriate guidance and clearly defined boundaries, teenagers seek answers via risky behaviors, often in an effort to gain acceptance from the peer group. Behaviors usually associated with the teen culture include, though are not restricted to, drug and substance abuse, truancy, early sexual activity, suicide, vandalism, and aggressive/violent behavior (Lancaster & Hamburg, 1986).

One of the results of the teenage sexual culture is teenage pregnancy and

childbirth. In the United States, approximately 1,000,000 pregnancies occur annually among teenagers, half of which will result in a live birth (Foster, Greene, & Smith, 1990). The dilemma of teenage pregnancy and childbirth occurring in numbers considered alarming creates problems and major challenges on several fronts with serious social, health, economic, and educational implications.

Some social consequences of teenage pregnancy cited by several authors include the risk of abuse and neglect, intergenerational teenage pregnancy, early divorce, and larger family size (Levering, 1983; Morrison & Jensen, 1982). Society is held accountable for the troubles of teenagers, however. It is charged with its contradictions and double standards that are not considered in the best interest of adolescents (Vinovskis, 1988; Watson, Rowe, & Jones, 1988/1989).

Teenage mothers and their children are at greater risk for health problems (Levering, 1983; Mitchell, 1984; Morrison & Jensen, 1982). In addition, the educational outlook for the teenage mother is bleak, because of the threat of truncated educational achievement (Elkind, 1984; Hayes, 1987; Mitchell, 1984; Morrison & Jensen, 1982). A further consequence to teenage pregnancy and the resulting curtailment of her education is that the young girl is at an economic disadvantage and her ability to compete for better jobs is significantly diminished.

The problem of teenage pregnancy cuts across all ethnic, social, and economic classes. Minority youths, for example, are said to account for 40% of births although they comprise only 27% of the teen population (Ladner, 1987). Freeman and Rickels (1993) indicated that there is enough evidence in studies to suggest that although teenage

pregnancy cuts across all socioeconomic and racial groups. large differences are found in the birthrates among all cultural and socioeconomic groups. Black school-age teenagers in the 15-17 age group had a birthrate nearly three times that of White teenagers of the same age.

In juxtaposition with other developed countries of the Western hemisphere, the United States has the inglorious status of leading in teenage pregnancy rates, birthrates, and abortion rates (Foster, Greene, & Smith, 1990). Even when the contributions from non-White populations are discounted, the U.S. still has the highest rates (Furstenberg, Brooks-Gunn, & Morgan, 1987; Jones et al., 1986). Whereas the teenage birthrate in England was 40 per 1,000, it was 150 per 1,000 in the United States (Jones et al., 1986).

Teenage pregnancy with its many negative consequences is an even graver problem for societies and governments in the Caribbean, many of which gained political independence from Great Britain during the last 15 to 20 years. St. Kitts-Nevis is a twin-island Federation among this group, independent since September 1983. Like many of its neighbors, much emphasis is placed on a general education for its youth for whom a secondary education is compulsory from age 12. Generally speaking, once a young girl becomes pregnant, the unwritten law is that the school doors are closed to her. Rarely can she ever return to join her peers in the regular classroom. On the rare occasion (in recent years) when she is allowed to return, the circumstances of the pregnancy, and the attitude of the young girl are considered (J. Williams, 1996, personal communication). In the event that a young female is allowed to continue her education in the regular classroom, she does so in a different school.

When we consider the bleak future for a teenage mother, the birth rates for St. Kitts-Nevis and other islands are alarming. In the 1980 census, birthrates mirrored and even exceeded those of the United States, and were closer to those found for Blacks in the U.S. In that year the rate for St. Kitts-Nevis was 143 per 1,000, while St. Lucia had the highest rate: 164 per 1,000 (Jagdeo, 1988). In 1990, the rate for St. Kitts-Nevis had increased to 170 per 1,000 births. It appears that despite the services of the Family Planning Association and some form of sex education in the high schools, this country is yet to experience significant and meaningful downward trends in teenage pregnancy and childbirth.

Statement of the Problem

St. Kitts-Nevis, with a population of less than 40,000 persons, is one of the seven members of the Organization of Eastern Caribbean States whose main purpose for grouping together is to maintain economic strength based on the East Caribbean dollar. Sugar cane has traditionally been the mainstay of the economy in St. Kitts, while cotton production and farming on a small scale have been the main activities in Nevis. Over the last two decades both islands have made strides in attracting tourists, and have built hotels and golf courses in their bid to become strong competitors in tourism. But tourism is an unstable industry.

The Federation also boasts a comprehensive, compulsory system of education and a high literacy rate, although most of the youth may not attain an education beyond the secondary level. When a young schoolgirl becomes pregnant, she forfeits her right to a

secondary education within the regular system. If she is motivated, she might attend classes at the Evening Institute or similar programs which prepare students for examinations from British and Caribbean examination boards. Presently, as the government seeks ways of dealing with the problem of teenage pregnancy, the current minister of education in the country is reported to strongly support the idea of continuing education for this group. Plans are for these young girls to continue their education at the Evening Institute at the expense of the government because, in all likelihood, they would be unemployed.

Notwithstanding the reality of the situation, many school girls continue to become pregnant. When one compares the birthrates per thousand in 1980 (143) and those for 1990 (170), it is evident that rates have increased, and one is left to assume that somehow the message is not getting through. The question is: What are the factors underlying teenage pregnancy in this country?

Numerous studies have addressed the problem of teenage pregnancy in various countries. So far, only one study, which I did in 1993 (Leader, 1993), has addressed the relationship between teenage pregnancy and educational achievement in St. Kitts-Nevis. There is merit in standing back from the problem and examining it in context. Some factors to be examined include the familial, social (church), and personality (self-esteem) variables related to teenage pregnancy. Specifically, what family variables are related to teenage pregnancy? What relationship exists between teenage pregnancy and father absence, intergenerational teenage pregnancy, and domestic violence? What is the young girl's view of her relationship with her father and with her mother prior to pregnancy?

Might there be a relationship between such a view and the likelihood of teenage pregnancy? Also, is there a relationship between the occurrence of childhood sexual abuse and teenage pregnancy?

As a result of the centuries-long relationship between St. Kitts-Nevis and Great Britain, one of the pervasive legacies is the important role the church plays in the life of the people. St. Kitts-Nevis claims to be a Christian society with strong ties to the Anglican (Episcopal/Church of England), Methodist, Moravians (St. Kitts only), and Catholic churches which are considered as the "mainline" churches. In fact, education was provided by the church in the Caribbean until earlier this century when governments gradually took over the responsibility of educating their people. The related question, therefore, is whether there is a relationship between teenage pregnancy and one's attitude to church, and church-related activities. Finally, is there a relationship between self-esteem and teenage pregnancy?

Purpose of the Study

The purpose of the study was to discover some of the factors related to teenage pregnancy in St. Kitts-Nevis. Some of the areas under study included family, social/church, personality/self-esteem, and school variables.

Research Questions

The questions for the study were primarily guided by the literature search. Conversations with personnel in the Ministry of Education in St. Kitts-Nevis also influenced the selection of the questions. These questions are related to the young

woman's view of the events of her life during childhood through the early teen years.

The study was guided by the following questions:

- 1a. Is there a significant difference in father-daughter/mother-daughter relationships between the pregnant and nonpregnant groups?
- 1b. Is there a significant relationship between father presence/absence and the occurrence or non-occurrence of teenage pregnancy?
2. Is there a significant relationship between intergenerational teenage pregnancy and the occurrence or non-occurrence of teenage pregnancy?
3. Is there a significant difference in the occurrence or non-occurrence of domestic violence between the families of pregnant teenagers and their nonpregnant peers?
4. Is there a significant relationship between childhood sexual abuse and the occurrence or non-occurrence of teenage pregnancy?
5. Is there a significant difference in church attendance and involvement in church-related activities between the pregnant group and their nonpregnant peers?
6. Is there a difference in self-esteem between the pregnant group and their nonpregnant peers?

Significance of the Study

With growing numbers of teenage girls becoming mothers, the government cannot afford to look the other way. Government needs to understand why rates continue on an upward trend, and what changes can be made in programs targeted to teenagers so that the

direction might be reversed in the future. The study gains significance considering that the government must devise means by which to support, educate, shelter, and employ its population. In this technological age, mothers need to be abreast of new ways of doing things if the next generation of St. Kitts-Nevis is to compete successfully on the world scene. In view of this present study, it is hoped that a number of things will result. First, it is hoped that those who work with youth and families will better understand underlying social forces which might perpetuate teenage pregnancy. Second, it is hoped that these professionals will better understand the family system which might affect teenage pregnancy. Third, it is hoped that those working with young people would devise ways to involve families of preteens and teenagers in discussing important developmental topics such as sexuality. Finally, I hope that the church would play a more proactive role in the lives of teenagers, supporting them and providing positive role models for them.

Conceptual Framework

Four broad areas seem to impact the occurrence or non-occurrence of teenage pregnancy. Family, social/church, personality/self-esteem, and school variables seem to have some relevance to this study and are briefly introduced in this section.

Family Factors

Parents influence their children's behaviors directly through verbal interactions and more indirectly through modeling. The type of modeling observed by children can have a strong impact on teenage pregnancy. The Social Learning perspective supports this idea and proposes that some familial factors related to teenage pregnancy include

lack of parental love and protection, early and continuous maternal neglect, absent fathers, and historical teenage pregnancy (Hagenhoff, Lowe, Hovell, & Rugg, 1987).

If a child (in this case, a girl child) is raised in an environment where unwed teenage pregnancy is the norm, and where parents including the extended family do not direct her to avoid their pitfalls, it seems that this child will have no compelling reason to avoid an early pregnancy. When raised in a family environment in which she feels loved, protected, accepted, and appropriately challenged, chances are that this girl will be more open to incorporate her parents' values into her lifestyle despite peer pressure to the contrary.

When "family" is used in the traditional sense, we assume a household comprising a married couple and their offspring. While this concept applies in St. Kitts-Nevis, oftentimes the concept of family is broader. In many cases this concept includes unmarried parents living together with their offspring, and other relatives who may share the same home, or who cluster in the same "yard." (Where several houses have been built in the same compound and the dwellers are all related, this common area is called a "yard.") For a considerable number of individuals, these groupings revolve around a matriarchy. Even though fathers may, with varying frequency, be uninvolved in raising their children, or may make minimal contributions to their children's upbringing, the extended family plays a very important role in the process of childrearing.

Values may differ across families. For some, unmarried teenage pregnancy is an accepted way of life. Schooling, for example, may be important only to the extent that it is mandatory by the government, but plans for a future beyond this may be lacking.

Children in some of these families observe their mother with multiple boyfriends and modeling from adults sends a certain message. Some of these children experience sexual and physical abuse at the hands of family members and family friends who have been entrusted with their care while parents pursue their various occupations. These abuses remain undetected or unchallenged in many cases.

When a girl child is raised in these kinds of abusive, unsupportive, and neglectful environments, she would, in all likelihood, have a negative view of her relationships within the family. This does not mean that all girl children raised under these conditions become teenage parents or experience academic failure. Many are the success stories of individuals who were mentored by a family friend, a distant relative, or a caring teacher. These persons refused to continue the cycle of early pregnancy and low educational achievement.

In other families, children are encouraged to seek an education, to “stay in school.” Parents in these families may have experienced intergenerational teenage pregnancy and may have reaped an undesirable economic harvest. For them, the idea of recurring poverty is abhorring enough to lead them to discourage early sexual activity and to encourage their children to aspire to some educational goal.

Social/Cultural Factors

A study of this nature requires an examination of the society as it relates to the target population. An important point to consider, for example, is the power of the peer culture. Is the peer culture one that has established culturally-acceptable future goals and

discourages risky behaviors that run the gamut from experimenting with drugs to early sexual activity, to full-blown violence? The peer group undeniably plays an important role in the development of teenagers. Jorgenson and Sonstegard (1984) found that the prevalence of sexual intercourse among teenage girls was determined by role modeling from girlfriends, and by social pressure from boyfriends. Even when the peer culture embraces deviant behaviors, the young girl who has strong, supportive family ties is less likely to turn to her peers for validation. She feels less pressure to become sexually involved at an early age because she has goals for her future which do not accommodate pregnancy and parenting at this stage of her life.

Church attendance is one of the traditional social activities in St. Kitts-Nevis. Dressing in one's "Sunday best" is no misnomer. It is true that over the past 2 decades the people have had increasing access to public and private transportation. The practice of walking to church on a Sunday morning (for a minority, on Saturday morning), however, is not totally lost. When addressing teenage pregnancy, one cannot avoid wondering whether church affiliation has an impact on the youth.

How deliberate are churches in discussing moral values and encouraging young people to embrace these values even when these are inconsistently modeled in the lives of some adult members? I want to advance the argument that if young people feel that their church addresses issues that are relevant to their lives in the here-and-now, they will be more willing to accept its moral teachings. Thus, I do think that in specific ways churches can and do impact teenage pregnancy, alcohol/drug abuse, interpersonal violence, and other social problems attributable to the peer culture.

Personality/Self-Esteem Factors

Individuals' behavior is a reflection of their view of their lives and the extent to which they think they have power over or within their environment. A young girl's view of herself in her environment is a factor influencing teenage pregnancy. Young girls raised with an external locus of control are more likely to experience an early pregnancy than those who have an internal locus of control. Individuals with an external locus of control look outward for answers to their situations and place responsibility for their problems on others and on circumstances. They seem not to think that they can actively influence their environment. They feel helpless in the face of family difficulties including discord, strife, and abuse, and an early pregnancy is just another of those things that happen to them, outside of their control.

There is disagreement regarding a relationship between self-esteem and teenage pregnancy. Among those arguing for a relationship between the two was Keddie (1992) who found that low self-esteem was significantly related to teenage pregnancy in Jamaica. One might argue that low self-esteem willingly cohabits with external locus of control. A phenomenon called "learned helplessness" has been studied in dogs and in humans by Seligman (1975) for over 2 decades. He found that learned helplessness occurred after subjects observed models, especially when these subjects recognized similarities between themselves and the models. Girls who have had females who bore children at an early age without completing school as their models, and who develop a low view of themselves, would understandably fail to make academic and economic plans for the future. If they do make plans, these plans may be very unrealistic. For some girls in

these situations. however, having a child of their own is a vehicle to achieve self-esteem. Having someone who belongs to them reduces their sense of helplessness and gives them some semblance of power and control within their environment.

School Factors

In St. Kitts-Nevis, the effects of teenage pregnancy are most swiftly and strongly felt in the area of schooling because once a pregnancy is discovered, the young girl must leave school. There continue to be debates on whether poor school performance predisposes a girl to early pregnancy or vice versa. Some suggest that girls with higher educational expectations are more likely to delay intercourse (Devaney, 1981). It seems then, that girls who have plans for education beyond high school, and who surround themselves with other girls with similar aspirations will be motivated to avoid teenage pregnancy. On the other hand, girls who have no such investment in their future may see little reason to avoid early pregnancy.

Homes may be headed by both biological parents who may or may not be married to each other, or they may be headed by a single parent. Other homes may include adult members of the extended family. The young girl who feels supported in her educational goals by some significant other is likely to avoid pregnancy. If the consistent message from her parents is one that encourages educational pursuit, and if she embraces the dream for a better economic future, she is likely to dedicate her efforts to education and not become involved in activities that put her at risk for early pregnancy. This cannot be argued with absolute certainty, however, for there are many examples to the contrary.

No one set of factors discussed above can by itself guarantee that a young girl will successfully avoid a pregnancy during the teen years. She may have great plans for a college education, and may sincerely desire this experience. But if there is no positive model within the family or in the larger community who nurtures her towards her goal, she is likely to fail, or at best, face great obstacles. If her home environment is neglectful, abusive, and unsafe, and if she develops a sense of helplessness, and low self-esteem, she is likely to experience an early pregnancy.

If, to the contrary, she attends a church that she finds relevant to her life, and if she finds her family supportive and safe, she is likely to succeed. If she views her relationships with her parents in a positive light, and adopts the values they attempt to inculcate in her despite their youthful errors, chances are that she will successfully charter the course of the teen years without becoming pregnant. All of the foregoing are not necessary for avoiding an early pregnancy, but some combination is very important.

The conceptual framework introduced in this section represents what I consider to be the complete package of the most important factors that apply to teenage pregnancy in St. Kitts-Nevis. The review of the literature in the following chapter centers around these broad areas but the research questions address only the first three factors. Family, social/church, personality/self-esteem factors are addressed directly in the research. Some aspects of the school factors were addressed in an earlier study that I did on the subject.

Research Hypotheses

The following are the research hypotheses which guided the study, broken down into broad areas

Family:

1a. There is a significant difference in father-daughter and mother-daughter relationships between teenage mothers and their nonpregnant peers.

1 b. There is a significant relationship between father presence/absence and the occurrence or non-occurrence of teenage pregnancy.

2. There is a significant relationship between intergenerational teenage pregnancy and the occurrence or non-occurrence of teenage pregnancy.

3. There is a significant difference in the occurrence or non-occurrence of domestic violence between the families of pregnant teenagers and their nonpregnant peers.

4. There is a significant relationship between childhood sexual abuse and the occurrence or non-occurrence of teenage pregnancy.

Social/Cultural:

5. There is a significant difference in church attendance and involvement in church-related activities between the pregnant teenagers and their nonpregnant peers.

Personality/Self-esteem:

6. There is a significant difference in self-esteem between the pregnant teenagers and their nonpregnant peers.

Assumptions

The following assumptions were made for the purpose of this study:

1. It was assumed that since education is guaranteed through the high-school level, respondents would have appropriate reading skills to understand the instruments.
2. It was also assumed that respondents would provide responses to the research measure that they believe to be accurate.

Delimitations of the Study

The sample for this study was delimited to two groups of females in St. Kitts-Nevis. One group was comprised of girls who became pregnant during their teen years, and the other was made up of their peers who did not become pregnant as teenagers. The findings of this research are limited to St. Kitts-Nevis. However, the results could be generalized to other English-speaking territories of the Caribbean because of their shared problems with teenage pregnancy and shared cultural similarities, resulting from their British heritage.

Definition of Terms

The following terms used in this study are defined as follows:

Adolescents: Used interchangeably with “teenagers” covering the 12- to 19-year-old age group in secondary schools in St. Kitts-Nevis.

African-American: Blacks born in the United States whose ancestors (like those of most of the Caribbean countries) were brought to America and sold into slavery.

Alcohol Abuse: The use of alcoholic beverages including beers, “Mountain

Dew.” an alcoholic concoction which is brewed illegally in woody areas in Nevis, Mount Gay Rum, Cockspur Rum. etc.. when such use interferes with the normal daily social and occupational functioning of the individual.

Domestic Violence: Incidents of physical and verbal fights between parents/guardians within the home in which physical harm is sometimes done. Children in such environments usually have feelings of insecurity and experience much fear.

Intergenerational teenage pregnancy: Pregnancy that occurs to teenagers within several generations of a given family.

Pregnancy: Known conception, whether or not the teenager brings the pregnancy to term.

Secondary Education: Same as “High-school” education. Education achieved by the end of a student’s 5-year sojourn at a secondary or “high” school. In St. Kitts-Nevis, secondary education is obligatory and free to all youths from age 12.

Sexual Abuse: A sexual encounter in which an older person (parent, relative, or acquaintance) forces sexual intercourse on, or attempts to have sexual intercourse with, a child or adolescent.

Organization of the Study

This study is organized into five chapters. Chapter 1 presents the introduction and background to the study. Included in this chapter is a statement of the problem, the purpose of the study, the significance of the study, the research hypotheses, assumptions, theoretical framework, limitations of the study, and the definition of the terms. Chapter 2

reviews the literature pertaining to the topic arranged under the four broad areas of family, social (church), personality (self-esteem), and school factors. Chapter 3 explains the methodology adopted for the research, the dependent and independent variables, the type of research, procedures used for selecting the sample, the instruments used, and the methods of statistical analysis. Chapter 4 presents an analysis of the data and interpretation of the results. Chapter 5 contains a summary, discussion, conclusions, and recommendations for further research.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter commences with a brief update regarding rates of teenage pregnancy. Some of the statistics quoted are dated by ordinary standards. More recent, comprehensive statistics are unavailable. The focus is on the four broad areas mentioned in Chapter I. Some discussion takes place on theories formulated about each factor, followed by empirical findings. A brief section is dedicated to a discussion of programs in the United States designed to curb the rates of teenage pregnancy.

There is general agreement that the pressures brought to bear on teenagers are many, yet adolescents are unprepared to deal with the barrage of pressures unleashed upon them by society and by the various forms of the media. Elkind (1984) stated that a clearly demarcated period of development is unavailable to today's adolescents. He suggested that, given the rapidly changing nature of today's society, teenagers have lost their once-privileged position. According to him, "Teenagers now are expected to confront life and its challenges with the maturity once expected only of the middle ages, without any time for preparation" (1984, p. 3). He observed that adults no longer have time to prepare the next generation for they are too busy retooling and retraining their own job skills. In the face of all the mixed messages from the various agencies within society, and insufficient

support for sexual restraint, it is no wonder that teenagers become caught up in the web of early sexual activities, other socially deviant behaviors such as drug and alcohol abuse, and escalating crimes.

Adolescents are expected to grow up in a society that is shifting and lacking in stability. There are few set limits, no agreed-upon set of values and no consistent way of leading adolescents through this no-man's land called adolescence. Teenage pregnancy, then, is a reflection of all these shifts and mixed social messages. As proposed by one source, "Adolescent pregnancy is a paradigm of American social neglect of children and youths. For millions of poor children and youths, it is also one symptom of a pervasive lack of hope and too few positive life options" (Children's Defense Fund, 1987, p. 3).

Smith (1988/1989) faulted the media, fashion, and dance for the dilemma. In her view, these give a clear invitation even to the youngest viewer or listener to be sexually active. Exposure to music videos and soap operas, for example, has the effect of arousing the curiosity and exploration of the preadolescent.

Rates and Trends

Although sexual activity among teenagers is not new, prior to the 1960s a pregnancy at this period of life was often resolved by marriage. However, some contend that among the various reasons for the concern about the high rates of pregnancy among White and minority teenagers are the declining teenage marriage rates, especially among Blacks, the lower age of menarche, and the increasing frequency of sexual intercourse, especially among White adolescents. Presser (1978) stated that White females were 12.7 years old at menarche, as compared with Black females at 12.3. No data were given on

Hispanic adolescents. The study, though dated, also revealed that there exists a strong correlation between age at menarche and date of first pregnancy.

Teenage girls are experimenting with sex at earlier ages (Hagenhoff et al., 1987; Zelnik & Kantner 1978; Zelnik, Kantner, & Ford, 1981). Black teenagers tend to initiate sexual activity at least 1 year earlier than Whites. While the rate of premarital sexual activity is higher among Blacks than Whites, the rate of increase of sexual activity among Whites has almost doubled that of Blacks over the past few years. The Alan Guttmacher Institute (1993) found that most of the increase in female sexual activity in the 1980s was among Whites and those in higher income families, thus narrowing previous gaps.

In the Caribbean and Latin America, the average age of initial coitus for girls ranges from 16.6 years in Brazil to 17 years in Mexico City. Up to 50% of the births to teenagers in some of the Caribbean countries, including Jamaica, and Trinidad and Tobago, are to girls below age 17. The younger the teenager, the less likely she is to use contraceptive measures (Harper, 1991). Suggestions are that teenage girls with no career plans and for whom motherhood is a reinforcer are least likely to use contraceptives during intercourse.

With respect to the rates of pregnancy and childbirth, there is apparent disagreement in the literature. Butler (1992) contended that because scholars have failed to make use of available statistics on first births to teenagers, many have been led to believe that teenage childbirth has escalated to epidemic proportions. Ladner (1987) agreed with Mott and Maxwell (1981) that although the birthrates declined, the pregnancy rates rose. Others attributed the declining birthrates in the 1970s to higher abortion rates

(Poe, 1990).

The increasing rates of abortion appear to be higher among Whites than Blacks. Some explain that the Black culture disapproves of abortion and adoption. According to Washington (1982), the abortion rate for Black teenagers increased between 1973 and 1977 when the government supported legalized abortion, but these services have since been cut. In her estimation, the disapproval of abortion among the Black community is due in part to their "religious beliefs, and reverence for life" (p. 18). Comparing the fluctuations of rates over time, the Alan Guttmacher Institute (1993) found that teenage pregnancy rates rose gradually during the 1970s; leveled off until 1986; and subsequently rose again. In 1972, the rate per 1,000 was 95, 111 in 1980, 108 in 1986, and 113 in 1988. Downward trends in pregnancy rates are reflected in the Monthly Vital Statistics Report on birthrates (U.S. Department of Health & Human Services, 1996b). For 1991, birthrates to older adolescents had declined to 62.1 per 1,000, and the overall rate further declined to 56.9 in 1995. No information was available on corresponding rates of teenage pregnancy, however.

Disagreement over the severity of the problem notwithstanding, one cannot ignore the general consensus that the rates of teenage births are higher among minority groups than among Whites. When the United States is compared with other developed countries, it usually takes first place. Jones et al. (1986) observed that the United States was in the unenviable first position for both pregnancy and birth rates: 150 per 1,000 and 93 per 1,000 respectively. Great Britain, its closest competitor, had corresponding rates of 90 and 65. The United States rates were several times those of the Netherlands.

The United States has lost its position to Hungary, according to Taborn (1987). While Hungary had a birthrate of 103 per 1,000, it was 101 for the United States, with a much higher rate for Black adolescents. In 1988 the pregnancy rate for the 15-19 age group in the United States was 113, and 74 for the 15-17 group. Minority teenagers had a rate of 197 per 1,000 compared with 93 for Whites.

The Alan Guttmacher Institute (1993) ranks the childbearing patterns of the United States between Canada's and Latin America's. By age 20, 10% of women in Canada experience a first birth, 20% in the U.S., 30% in Brazil and 50% in Guatemala.

The effects of teenage parenthood are not restricted to the young mother and her immediate family. They also affect the society in general, especially the health care and welfare services, and place financial burdens on taxpayers. In the Caribbean, the consequences of teenage pregnancy are just as devastating. The legality of abortion varies from one island to another. In Barbados, for example, it has been legalized. The abortion rates for St. Kitts and Nevis are unknown. It has been brought to my attention that medical abortions are available on demand, although medical practitioners are not required to report the number of abortions performed (E. Bailey, June, 1996, personal communication).

Considering rates in the Caribbean over time, the birthrates, like the consequences, mirror those of the United States and are particularly similar to the rates for minority teenagers. Data for the Caribbean region for the 1990s remain unavailable. However, examples of the rates in some Caribbean countries in 1980 were 120 per 1,000 in Guyana; 125 in Grenada; 133 in Jamaica; 143 in St. Kitts-Nevis; 157 in St. Lucia, and

164 in St. Vincent (Jagdeo, 1988). These clearly surpass rates reported for Great Britain, Canada, France, and the Netherlands. They come closest to the United States.

Data supplied by the 1988 United Nations Demographic Yearbook show the birthrate per 1,000 for the United States as 51.7 among teenagers 15 to 19 years old. For Canada and England, the rates were 22.8 and 29.5 respectively. A sampling of the rates for the Caribbean from the same source shows 94 for Antigua; 91.7 for Barbados; 101 for St. Kitts-Nevis; 113 for St. Lucia; 162 for Grenada, and 120 in Jamaica (cited in Harper, 1991).

The most recently available United States data from the Monthly Vital Statistics Report (U.S. Department of Health & Human Services, 1996c) make a distinction between married and unmarried teenagers. For the former group, the birthrates for those ages 15 to 19 declined 13% between 1970 and 1994. Reportedly, the pace of the birthrates to unmarried teenagers has slowed since 1991. The overall 1991 birthrate of 62.1 per 1,000 to 15-19-year-olds declined to 58.9 in 1994. Older teenagers (18-19 years) had a rate of 91.5 in 1994, which is more than twice that for teens 15 to 17 years old. No data are available for younger teenagers.

American Blacks experienced a 10% drop in birthrates between 1991 and 1994 from 115.5 to 104.5. Among Hispanics, there was a 1% increase over the same time period to 107.7. The rate for Whites remained considerably lower at 51.1.

Preliminary data for 1995 indicated that birthrates continue on a downward trend in the United States. For that year, there was an overall 3% decline in birthrates from 58.9 per 1,000 to 56.9. Rates for Blacks also declined. This group experienced a 17%

drop to 95.5 (U.S. Department of Health & Human Services, 1996b).

Some may wonder to what these declines can be attributed. Sex education in schools? Consistent use of contraceptives? More abortions? The answer is at best complex and incomplete. Some information on recent trends in abortions may partially address this question. Abortion rates for the under-15 group continue to be consistently more elevated than other groups. Between 1980 and 1992, there was a 43% decline in abortions coupled with a 20% increase in pregnancies that were carried to term. The rates for the 15-19 age group are second to the younger group just discussed. Between 1983 and 1990, however, theirs experienced a decline of 38% (U.S. Department of Health & Human Services, 1996a). More recent and comprehensive data were unavailable.

In St. Kitts-Nevis, the birthrates to teenagers given by the St. Kitts-Nevis Family Planning Association (1994) for the years between 1988 and 1993 seem to remain elevated with an uneven pattern. The rate in 1988 was 190 per 1,000, while in 1989 the figure increased to 200. There was a slight drop to 170 in 1990, but then the figure rose again in 1991 to 180. The increase to 200 for 1992 was followed by a rate of 160 per 1,000 births in 1993. More recent data that reflect the number of births to teenagers were unavailable.

Evidently, the rates differ from source to source. Although the years for which rates were discussed do not correspond for all groups, some differences are clear. While the birthrates for the United States have declined, those for the Caribbean area continue to be elevated. This paints a bleak picture for such countries. In the light of the consequences of teenage parenthood already cited in this section, there is enough reason

to be alarmed at the prospects for these countries. It raises the question of why the birthrates among teenagers in the Caribbean are so high.

Four Broad Factors

In an attempt to understand the dynamics of teenage pregnancy in St. Kitts-Nevis, it is insufficient only to compare rates and examine consequences in general terms in the literature. It seems desirable to examine the contexts in which teenagers are raised in this country. There is the need to understand what influences the behavior of teenagers. Card, Peterson, and Greeno (1992) suggested that social influences on sexual behavior are many but that the primary agents are family and peers.

Elkind (1984) took the position that the high rates of teenage pregnancy cannot be easily explained. He suggested that in order to present a complete explanation of the phenomenon, such an explanation would have to account for "many different contributing factors, such as increased proportion of teenage girls who are sexually active, the economy, the family background, the group of young people the teenager associates with, and so on" (p. 131).

With such comments in mind, the rest of the literature review is restricted to discussing the topic within a four-factor framework. The discussion is limited to family, social, personal, and school variables. Despite the difficulty of separating each component discretely, an attempt is made to do so.

Family Variables

Similar to the effects of war, illegal drugs, Acquired Immune Deficiency

Syndrome (AIDS), and natural disasters, teenage pregnancy has far-reaching effects on families, neighborhoods, communities, and countries. Although said to mainly affect families of low economic social status, teenage pregnancy, like the common cold and other viruses, knows no social barriers. Thus, whether the parents earn salaries in the millions or survive on welfare checks, they share the common concern that their youngster might become a teenage parent. Recognizing that teenage pregnancy should be of concern to all, the Children's Defense Fund (1987), in its statement of 10 reasons to prevent teenage pregnancy, commented:

The more than one million American teens who get pregnant every year are everybody's daughter, granddaughter, and neighbor's child. And they were impregnated by everybody's sons, who are the oft-forgotten, excused or winked at half of this social tragedy. (p. 3)

The severity of pressures, economic and otherwise, that a youthful mother must face result in physical and emotional stresses. Levering (1983) suggested that such a "syndrome of failure" often results in unstable families and psychological problems. Being 17 or younger increases the likelihood of this occurring. The teen mother is often unprepared to meet the demands of motherhood and lacks the skills she needs to successfully charter the course of adulthood and parenthood. Levering also commented that, at its worst, the pressures experienced by teenage mothers would lead to frustration and violence either through abuse and neglect of the child, or turning on themselves and committing suicide. Family instability, abuse, and neglect are possible characteristics to be found in these families.

In an attempt to account for the magnitude of the problems faced by teenagers, Smith (1988/1989) claimed that the pressure for economic survival and the changing role

of women have played a part. She posited that the need to survive economically has had devastating effects on the African American family. The result of parents taking two jobs is a great reduction of time spent with their families to give advice and support. This boils down to an erosion of the family. Some might argue that this is also the case with other families. While no one will argue against that point, Smith believed that the pressures are felt more by the African American family.

Second, Smith stated that the changing role of women has affected the way they operate. Women are now more economically independent and are more active in the political and social arenas. They are less likely to accept the traditional passive, deferential complementary relationships to men.

Moore (1985) took a closer look at influences on teenagers. She felt that family characteristics are more important than external influences affecting teenagers. She further suggested that the stronger the external pressures, the stronger the family influences need to be in order to counter such pressures. This seems to indicate that the behavior of the adolescent (sexual or otherwise) is a reflection of the family dynamic.

In the view of Romig and Thompson (1988), teenage pregnancy does not occur in isolation from family needs. In a dysfunctional family, teenage pregnancy is a way of stabilizing the family. Framed in a Family Systems perspective, the teenager develops an incapacitating problem (a pregnancy) that requires prolonged dependence on parents. It serves a dual purpose of preventing the feuding parents from facing each other, and the youth benefits because it reduces pressure on her to develop her sense of identity and independence.

Levering (1983) observed that young girls who experience a first pregnancy are likely to have poor relationships with their families. They may be runaways and may lack appropriate adult role models. Vinovskis (1988) concurred with this view. Referring to Hogan and Kitagawa's study, he indicated that it is the particular characteristics of a girl's family, not so much the Chicago neighborhood in which they live, that best predict an adolescent daughter's pregnancy. This idea was echoed by Hudson and Ineichen (1991) who suggested that the most important factors associated with sexual abuse within a family had to do with poor or faulty family relationships.

Important family variables that augur well against adolescent pregnancy include parent-child communication, parental modeling and supervision, provision of rewards and punishment for behavior, and a family value system that opposes early sexuality and parenthood. The parent-child variable has been singled out as a most important variable. In fact, Watson et al. (1988/1989) discovered overwhelming support in the literature suggesting that the major variable that correlates with the socialization problem is not so much family structures, but parent-child interaction. By this is meant that consistent and thoughtful use of parental discipline and ease and quality of communication between parent and child are crucial in developing a healthy child.

Intergenerational Factors

Justice cannot be done to a discussion on family characteristics without addressing intergenerational factors. The Alan Guttmacher Institute (1993) compiled facts indicating that although it is not inevitable, the daughters of teenage mothers are more likely to in turn become teenage parents. This follows the pattern of learning

theory, where modeling is one of the vehicles for learning. Commenting on the intergenerational nature of teenage childbearing, Levering (1983) stated: "Children of adolescent teens are also likely to become teenage mothers themselves" (p. 183). And accompanying intergenerational teenage childbearing is the intergenerational transfer of poverty, especially to children of single-parent families (Caldas, 1993).

Rawlins (1984), in her study of working-class Jamaican society, pointed out that, as in other societies, the young girl primarily learns her sex role from her mother. She learns what behavior will be rewarded and which ones punished. However, a situation of ambivalence is created. Whereas the young girl may be encouraged to do all the right things--finish school so she can get a good job, for example--there is dissonance between what her mother says and what she practices. This is because among working-class families, many mothers are unmarried and had become teenage mothers.

Family Values

The question of values within the family also arises. It is thought that traditional family values are no longer adhered to. Traditional values against premarital sex are no longer "popular," and young men are expected to be sexually active before marriage (Smith, 1988/1989). In Jamaica, Rawlins (1984) noted a similar attitude towards male adolescent children. She observed that parents decreased some of their control over boys during adolescence but attempted to maintain it over their adolescent girls, hoping among other things to prevent premarital pregnancy. What is not clear is whether this attitude reflects a change from traditional values.

The question of changing values was echoed by Stevenson (1990). He recognized

that the transmission of cultural values from one generation to another is done by parents. He noted that the religious values of parents that exist within the African-American cultural community are not being consistently applied to influence the behaviors of its teenagers.

The Effects on the Immediate Family

Many may wonder about the effects of a pregnancy on a family. As noted earlier, emancipation from the family is one of the issues contributing to a healthy period in adolescence. Although identity development and emotional emancipation are difficult, they are necessary tasks for the adolescent (Romig & Thompson, 1988). The teenager's mother is undoubtedly affected by a pregnancy. She is often the one on whom the teenager has to rely, even when their relationship has been volatile. Ninety percent of first-time teenage mothers live with a parent figure, and up to 77% still do so a year later (Romig & Thompson, 1988).

The teenage mother, given her lack of competitive skills on the employment scene, faces economic dependence. It often happens that the immediate family of the teenager ends up supporting her child, but, according to Romig and Thompson (1988), this often leads to tension and confusion. Yet, according to these authors, despite the dependence, having a baby may mean breaking away from an unsatisfactory family environment.

Family Structure

The structure of a family is thought to have an effect on the probability of teenage

pregnancy occurring. It is often shown that some of the characteristics with respect to family structure are particularly influential in teenage pregnancy. Family instability has been shown to be especially influential. This may be in the form of marital discord, divorce, and much negative criticism.

By far the aspect of family structure most widely discussed in the literature is single-parent, female-headed homes. The increase in female-headed homes is sometimes attributed to the increase in absent fatherhood, especially since the 1950s. Data from the Bureau of the Census clearly indicate that there continues to be an increase in female-headed homes. Between 1970 and 1991, the increase among Whites was from 9% to 13%; Hispanics, 15% to 24%; and Blacks, 28% to 48%.

Speaking of family structure among lower-class people in Jamaica, Blake (1980) attempted to explain the preponderance of female-headed homes. He suggested that, different from a matriarchy;

the prominent role played by the mother in the lower-class household does not seem, as is often thought, to indicate a radically different definition of parental roles as between middle and lower-class families. Rather, maternal dominance appears to be merely an uninstitutionalized result of lower-class efforts to attain and maintain, even when the father has deserted, the desired type of authority relationship with children. (p. 76)

This state of affairs distorts the mother's relationship to her children. In addition, Blake suggested that the sexual exploitation of young girls results from and contributes to family disorganization.

An aspect of female-headed homes in working-class Jamaica and other Caribbean countries is the "visiting" arrangement when a female is visited nocturnally by a male friend. "Common-law" unions in which a couple lives together for long or shorter

periods without the benefit of marriage are also fairly common. Although given low status, up to about 30% of women live in such unions.

Some trace the presence of female-headed households in the Caribbean to slavery. Their owners often denied them marriage because of the risk of one partner being sold. Others have challenged this view. However, in recent times (starting from the 1960s), the increase of female-headed homes has been partly due to selective migration where males tended to migrate to the United Kingdom, North America, and the British and U.S. Virgin Islands (Leader, 1993). This movement was due to economic hardship. The 1980 census data (more recent data remain unavailable) indicated that among the Caribbean islands, St. Kitts-Nevis had the highest proportion (47%) of female-headed homes.

The Family and Sexual Abuse

No study of the family in the context of teenage pregnancy is complete without considering sexual abuse and incest. Sexual abuse and incest are experienced in families across cultures and in varied communities. Research on incest and sexual abuse with specific emphasis on Black families, however, is scarce. Although she did not speak to how sexual abuse relates to teenage pregnancy within the family, Wilson (1994) attacked some of the myths surrounding sexual abuse in the Black community. She opposed the widespread belief in Western societies that it is “normal practice in black communities for little black girls to be sexually man-handled by their fathers, grandfathers, uncles, and friends of the family.” (p. 7). She admitted that incest occurs in the Black community as it does in other cultures and communities, but that in the Black community it is not talked about. She explained that this silence is the result of the cultural practice where adults

teach children not to “put our business out in the street” (p. 7).

In her opinion incest and sexual abuse are abuses of power in which male authority is achieved at the expense of females. Wilson was also bothered by the traditional practice in Black communities where adults have the right to tell children how to behave and to respond with unquestioning obedience. However, when sexual abuse or incest occurs, this represents hypocrisy, and leads to feelings of powerlessness and confusion in children. According to her, daughters keep quiet about the incest or abuse for fear of not being believed, or of being accused of colluding with the act, or of the extreme shame attached to being violated by a trusted individual.

Roosa, Tein, Reinholtz, and Angelini (1997) warned that simply comparing the teenage pregnancy rates of abused and non-abused women can be compounded by shared risk factors. They suggested that the relationship between teenage pregnancy and childhood sexual abuse may vary depending on the timing of the abuse relative to the onset of voluntary sexual behavior. Further, they took the position that when force is involved in the sexual violation of children, this makes for a stronger correlation with early pregnancy than when the abuse was limited to unwanted fondling.

Empirical Findings: Family and Teenage Pregnancy

Several studies have focussed on the family variables related to teenage pregnancy. Barglow, Bornstein, Exum, Wright, and Visotsky (1968) examined a sample of adolescent mothers. These teenage mothers experienced fierce struggles with their mothers prior to pregnancy. The fathers of these girls were mostly absent, which appeared to interfere with the girls' ability to develop clear self-other differentiation and

ego boundaries. As a result, these girls demonstrated role reversal, expecting to receive rather than give love to their babies.

Modeling by mothers appears to have a strong effect on their daughters. Hudson and Ineichen (1991), referring to a study done in South London in the 1980s with a sample of 500, found two contrasting types of mothers who influence an early pregnancy. On the one hand was the distant mother who seemed to care too little about her daughter's activities. The other type of mother had a symbiotic relationship with her daughter and a pregnancy served to reinforce that bond. The 217 pregnant girls in the sample were found to cluster around the distant mother type.

Landy, Schubert, Cleland, Clark, and Montgomery (1983) carried out a study of 50 teenage mothers in Manitoba, Canada. They inquired whether teenage mothers differ systematically in personality organization and/or family background from nonpregnant controls. In general, the findings were supportive of previous findings. These included that pregnant teenagers tended to come from broken homes; they tended to have experienced unstable family relationships; and they were at some point abandoned by at least one parent. These girls who reported the lack of a warm relationship with their father also reported a good relationship with the mother. Clinically, this relationship was observed to be symbiotic, overprotective, and smothering. The authors' conclusion was that pregnant teenagers were characterized by a weak or absent father, and a dominating, overprotective mother. In male-female relationships, the pregnant teenagers saw themselves as inadequate, their womanhood not validated by the fathers. In sum, their pregnancy was no accident, but was psychologically motivated.

Data were collected by Olson and Worobey (1984) on 60 adolescents, 20 of whom were pregnant. They were all matched on demographic variables. The study was designed to focus on describing the mother-daughter relationship as perceived by the teenager. The variables that significantly differentiated the two groups were that the pregnant teenagers had lower grade point averages and they perceived significantly less affection, love, and interdependence from their mothers. Although these did not reach significance (alpha .05), the pregnant group's perception of fewer demands, greater rejection, and more casualness in the mother-daughter relations was important.

The authors underscored the importance of a positive attitude toward higher education and higher levels of academic achievement in deterring early childbearing. The perceptions of the subjects on the mother-daughter relationship also place in bold relief the need for parents to foster positive bonding with their children, to be consistent in dealing with them, to establish adequate, age-appropriate boundaries, and to be good role models themselves.

To further examine parent-daughter relationships, Rawlins (1984) studied 200 teenage girls in working-class sections of Kingston, Jamaica. Half of the girls comprised the pregnant group, the other group was made up of nonpregnant girls. Rawlins found the proportion of absent fathers to be higher among the pregnant teenagers than their counterparts. When a father was present, the pregnant girls were more likely than the nonpregnant ones to experience less father-daughter communication or more likely to describe the father as cruel. Interaction with the mother was reportedly less frequent and of less quality among this group also. These findings support those already reported.

Rawlins (1984) acknowledged that the findings represent a one-sided view of the relationship, since only the daughters were studied. This might be a limiting factor. Nevertheless, she concluded that the quality of parent-daughter interactions is vital to determining susceptibility to early pregnancy. However, this is only one of several factors. Finally, this study also showed that although many of the mothers of the girls in both groups had been teenage mothers themselves, the pregnant girls had a higher occurrence of sisters and friends who had been teenage mothers. This brings to mind concepts such as peer pressure, intergenerational transfer of teenage pregnancy, and also the Social Learning terms of modeling, vicarious learning, and self-efficacy.

Rodriguez and Moore (1995) reported on a study of 14 school-based programs for pregnant and parenting teenagers in Texas. There was a sample of 341 between 11 and 19 years of age. They found that their sample reported a closer relationship with their mother than with their father. Seventy percent rated their relationship with their mother as good to excellent, whereas only 45% gave a similar rating to their father. Among the significant findings were: lack of emotional closeness to parents, lack of sex education, and some race/ethnic differences. The lack of emotional closeness was linked to the amount of free time available, lack of structure, and lack of connectedness with parents. They also found that Hispanic teenagers were more likely to be in two-parent families than Whites or Blacks.

In her discussion of findings on sexual abuse in London, Wilson (1994) indicated that a 1991 study by the Child Abuse Studies Unit (CASU) of the Polytechnic of North London found that 50% of the girls and 25% of the boys were sexually abused by age 18.

In her own study with colleagues, Wilson discovered that, among the 1,244 participants between ages 16 and 21, 59% of the girls and 25% of the boys experienced at least one sexually intrusive experience before they were 18. About one third of these occurred before the age of 12.

Boyer (1993) and two colleagues conducted a study in Washington State between 1988 and 1992. This study examined the relationship between sexual victimization in childhood and adolescent pregnancy, as well as child maltreatment by adolescent parents. The sample consisted of 535 pregnant and parenting adolescents. Sixty-two percent of the sample had experienced contact molestation, attempted rape, or rape prior to pregnancy. Fifty-five percent had been sexually molested beginning at an average age of 9.7 years with 24% claiming that the abuse started at age 5 or younger.

The majority had been victimized by a family member with an average age of 27.4 years, and the highest rate of victimization occurred among Whites (72%), Native Americans (64%), Blacks (50%), and Hispanics (46%). The striking differences that appeared among this sample were: the abused adolescents were less likely to use some form of contraception; they were more likely to be or have been in a violent relationship with a mate; they were more likely to have abused drugs and alcohol; and they were more likely to report that their children had been abused.

The most recent study on sexual abuse was undertaken by Roosa et al. (1997) and appeared to be more comprehensively conceptualized than previous studies. They used several measures with a sample of over 2,000 respondents in Arizona. Some of the areas investigated included sexual history (sexual precocity), childhood physical abuse,

childhood sexual abuse, and high risk behaviors. They found that teenage pregnancy differed significantly by ethnicity: 19% non-Hispanic White, 22% African American, 31% Native Americans, and 34% Mexican Americans. In addition, pregnancy rates for their sample differed significantly by the severity of the abuse. The likelihood of teenage pregnancy was higher for lower socioeconomic status as measured by mother's level of education. This study also found that those who were sexually abused as children were much more likely than nonabused peers (36% vs. 21%) to have had a teenage pregnancy. Also, those who were pregnant as teens were more likely to have been sexually abused as children (50% vs. 31%).

When logistic regression was used to analyze the data, however, early sexual abuse failed to be a significant contributor to the risk of teenage pregnancy. Rather, age at first voluntary coitus and the use of birth control explained the largest variance in teenage pregnancy. When all predictors were considered simultaneously, the severity of the abuse was not related to teenage pregnancy either.

Summary

This section on family variables attempted to look at the effects of a teenage pregnancy on the teenager's immediate family, and the importance of values transmission within the family. As has been demonstrated by the various empirical studies cited, there is the need for good parent-child interaction in deterring early pregnancy. Self-esteem correlates with the presence of a father figure and may prevent this phenomenon. Teenage pregnancy can be an intergenerational phenomenon. Finally, although not all the variables are clearly understood, there is some evidence to suggest that early sexual abuse

might predispose the young girl to teenage childbearing, alcohol and drug abuse, and other risky behaviors.

Social Variables

A discussion on social variables is complex at best but very necessary and germane to the topic. Under this section, culture, peer pressure, values, and church involvement emerge in the discussion.

Culture and Values

The values espoused by present-day society in America seem to be diametrically opposed to those espoused up to a quarter of a century ago. One needs only to listen to the debates regarding changes to various Amendments or to be reminded of the Gay Rights Movement's bid to be accorded the status of "civil rights." No longer does it seem that society provides parameters within which the adolescent is expected to behave. In fact, in the view of Levering (1983), 2 to 3 decades ago society provided a rigid environment for adolescents in its attitude towards sex. However, this traditional cultural and moral influence on adolescent sexuality has lost its hold subsequent to the age of narcissism of the 1970s whose motto was: "If it feels good, why not!"

Supportive of this view is Vinovskis (1988), whose contention was that changing values and culture have contributed to the growing proportion of out-of-wedlock births. With the decline of communal intolerance of out-of-wedlock births have come divorce and female-headed households. The Children's Defense Fund (1987) faulted society's adult hypocrisy, double standards, and confused values. In such a society, "we tell our

girls to be chaste and our boys to "score" (p. 9).

Peer Pressure

The effects of peer pressure must be incorporated into a topic of this nature. Adolescence is a period in which, in order to establish his or her identity, the adolescent seeks the peer group for validation and direction. The pressure exerted by peers can be positive or negative. The discussion focuses on the negative effects.

Miller, Card, Paikoff, and Peterson (1992) advanced the argument that, next to the family, the peer group is the primary agent exerting social influence on teenage pregnancy. In making a case for informing teenagers about sexual behavior, Clapp (1981) claimed that in the absence of such information, teenagers are left to assume that their immediate circle of friends is representative of what everyone else is doing. This is an erroneous assumption since not all adolescents are sexually active. One of the risks of relying on one's peers with whom youths are most likely to communicate about sex and birth control is the possibility of being misinformed (Hagenhoff et al., 1987).

One needs to be wary of ignoring the great odds against which teenagers must develop in today's society. Given the confusion and lack of direction from adults in the society, it is not surprising that the peer group plays such an important role. Levering (1983) questioned how teenagers can cope when, more than any other age group, adolescents are vulnerable and responsive to peer pressure. The suggestion is that given the need for peer acceptance, it is difficult to act differently from the crowd.

The Role of the Church

In many cases when the church is mentioned in the literature, it is often in conjunction with an appeal for community institutions to become more involved in dealing with the problems faced by teenagers (Weinstein & Rosen, 1994). It may also be that in underscoring the conflicting messages received by teenagers, the point that is sometimes made is that the church, home, and school teach something opposed to the highly prized values of illicit sex. Held (1981) charged the African-American church for remaining "shockingly silent" on discussions on teenage pregnancy and for embracing a Victorian morality.

Looking specifically at how the church might influence the sexual behavior of teenagers, the Michigan Department of Public Health (1993) reported that women ages 15 to 19 are more likely to be sexually active if they are not regular church attendees. This finds support in Miller and Olson (1988) who proposed that those adolescents who rarely attend church are more sexually experienced and engage in sexual activity at earlier ages than those who attend church often. Furthermore, they noted that those who found church important to them are likely to be less sexually experienced. However, they found that religious affiliation has less impact on sexual behavior than religiosity does. Religious affiliation is understood to refer to church attendance and membership within a certain denomination. Religiosity refers to the degree of relevance or importance an individual ascribes to the experience within the church environment.

Empirical Findings

Available data on the role of the church are sparse, and dated in some instances.

Nevertheless, in a few studies, some mention was made of the effect of religion on teenage pregnancy. Vincent (1961) studied a sample in California in the 1950s and found that several in his sample reported no church attendance, and very little parental discipline. When asked what they would do differently, they responded that they would take religion more seriously.

From his survey of youngsters involved in church-related activities, Clapp (1981) discovered that youths were disenchanted with the church. Further interviews led to the conviction that a higher number of young people and adults recognize the importance of the church in helping values formation in the areas of sexuality, dating, and marriage. Vernon, Green, and Frothingham (1983) found that, among their sample of 858 13-19-year-old females in Durham, North Carolina, teenage pregnancy was inversely related to church attendance. In the Maryland sample (Hardy & Zabin, 1991), 42% of the pregnant teenagers reported belonging to or attending a church. This raises the question as in Clapp (1981) above about the relevance of the church in matters of sexuality. One is forced to ask how the church is preparing its youth to charter the course of the teen years successfully. In their sample, Rodriguez and Moore (1995) found that Black teens were more likely to attend religious services than White or Hispanic teenagers.

A study was conducted for the North American Division of Seventh-day Adventists, and completed in 1990 (Benson & Donahue, 1990). This Valuegenesis study focused on the faith, values, and commitment of Adventist youth in grades K-12. More than 12,000 youth, 1,900 parents, and over 700 pastors, teachers, and principals were involved in the study. One of the areas of interest was to identify the dynamics within

families, congregations, and schools that promote faith maturity, Christian values, and loyalty to Adventism among its youth.

The strongest family-related factor was the quality of family worship, which seems to underscore the power of modeling in the home. Three themes were deemed important in the church setting in the view of Adventist youth. The first was congregational warmth, caring adults, and caring peers and teachers. Another theme was that youth place high value on a thinking climate within the congregation and interesting education programs that stimulate their thinking. The third theme was relevance to the adolescent experience including discussing such topics as drugs and sexuality. In the school setting, growth in faith was most effectively promoted by offering high-quality religious education in a caring supportive school environment. The analysis of the data showed the additive power of the family, the congregation (church), and the school. When all three work together in harmony, the likelihood of loyalty in young people is increased. The case is therefore made for ensuring that youth be connected with strong families, congregations, and schools which possess the attributes cited above.

Another section of the report focused on social concerns. In part, the conclusion was that although Adventist youth's involvement in at-risk, life-threatening behaviors such as drugs, drinking, and premarital sex is higher than we would like, it is about half that reported by American youth on the whole.

Personality/Self-esteem and Teenage Pregnancy

In this section, consideration is given to personality variables that might be correlated with teenage pregnancy. The discussion focuses on two important aspects:

self-esteem and locus of control.

The psychoanalytic perspective is that teenage pregnancy demonstrates the defense mechanism of "regression" in that the adolescent attempts to recreate a union when mother and child are confused. Another view is that of self-punishment, inferiority, and self-doubt. Barglow et al. (1968) described it as a passive-dependent personality type with a narcissistic character structure.

Babikian and Goldman (1971) suggested that the tendency to have poor ego control, to be impulsive, and to demonstrate an inability to foresee consequences are typical of pregnant teenage girls. This seems to suggest that such teenagers exhibit an inability to plan or make decisions, are nearsighted with respect to consequences for behavior, and are likely to have an external locus of control. Levering's (1983) search of the literature concluded with a list of traits attributable to this group. These adolescents are unable to use information, display inability to project events into the future, and have low self-esteem. Because those with poor self-images see few options for a productive, successful future, they are highly at risk for early pregnancy. Voydanoff and Donnelly (1990) further noted that having a child before age 19 is associated with a decrease in personal efficacy over a 3-year period.

In their prospective study of female 9th- to 11th-graders in Durham, North Carolina, in 1980, Vernon et al. (1983) hypothesized that teenagers with low self-esteem are more likely to become pregnant than teenagers with average or high self-esteem. Their study was based on usable data from 858 respondents from low socio-economic homes, 87% of whom were Black and 11% of whom were White. The 58-item

Coopersmith Self-Esteem Inventory was used. They found no significant difference in the average self-esteem scores for the young women who became pregnant (66.7) versus 65.3 for the rest of the sample. To explain this finding, the authors suggested that (1) self-esteem data were collected prior to pregnancy, unlike in other studies, and (2) other studies relating low self-esteem to teenage pregnancy were done on predominantly White populations, unlike in this study.

A study of 677 12- to 16-year-old males and females in a midwestern junior high school (Orr, Wilbrandt, Brach, Rauch, & Ingersoll, 1989) generated the following conclusions. Sexually experienced girls had lower self-esteem than sexually experienced boys and virginal girls. Contrary to the previous findings, Koniak-Griffen (1989) failed to uncover statistically significant differences in self-esteem scores between pregnant girls and teenage mothers when compared with control groups. It must be noted that no two of these measures had identical procedures.

Another study in Jamaica involved a sample of 242 girls (Keddie, 1992). The researcher hypothesized that girls who have experienced a pregnancy would have lower self-esteem, and would view their mothers as less caring and more controlling than their never-pregnant counterparts. While no significant differences in perception of maternal care and control appeared between groups, other important findings emerged. Self-esteem scores for the urban never-pregnant group were significantly higher than the once-pregnant girls. The same pattern held for the rural group, though not significant. There still remains the question of whether low self-esteem is a risk factor for or a result of early pregnancy. Another finding was that, in the Kingston area, girls without a father figure

were 2.7 times more likely than those with a father to become pregnant. Also, girls with low self-esteem were 2.5 times more likely to be pregnant if without a father, than those girls with low self-esteem with a father. One interesting finding was high self-esteem among the nonpregnant schoolgirls without a father figure. Keddie concluded that, in urban Jamaica, absent fathers and relatively low self-esteem were more prevalent among the once-pregnant group than the comparative group. She counseled that if high self-esteem serves as a protective function, there is the need to help young people strengthen their sense of personal worth. However, as seen from these studies, conclusions about self-esteem and teenage pregnancy vary from one study to another.

A study that addressed personality variables was unearthed in the search (McIntyre, Saudargas, & Howard, 1991). They hypothesized that pregnancy experienced during adolescence is associated with external attributions of control over events in one's life. Among their sample of 13 "pregnancy-experienced" and 38 "pregnancy-inexperienced" teenage girls, they found external attribution orientations to be significantly overrepresented among "pregnancy-experienced" girls. By "pregnancy-experienced" is meant that the subject had had a pregnancy during the teen years, whereas the "pregnancy-inexperienced" had not. Voydanoff and Donnelly (1990) found something similar. Among White teenagers in their sample, an internal sense of control was negatively related to bearing a child out of wedlock, although they caution that this may be indirectly related to higher educational experiences. Such findings are similar to what Boyer (1993) found among teen mothers who had been sexually abused as children. In her case, she found that these teenagers believe that they cannot control what happens

to them. They think that they cannot choose, and hence become passive actors in life.

Nevertheless, the authors noted that since external attributions were found in both groups, the conclusion drawn is that attributional orientation is only one of the factors associated with teenage pregnancy. This concurs with earlier statements to the effect that an understanding of teenage pregnancy must involve a multiplicity of factors (Elkind, 1984). In concluding the study, the authors state that external attributional orientations not only pose risks for the occurrence of adolescent pregnancies, they also serve as “possible consequences of adolescent pregnancies that pose further risk for both adolescent mothers and their offspring” (p. 61).

Schooling and Teenage Pregnancy

In the process of attempting to understand what factors are correlated with teenage pregnancy, it is reasonable to attempt an examination of school variables in the overall framework. While one needs to steer clear of redundancy, one needs to reemphasize the strategic importance of schooling in the life of the teenager.

The literature suggests that the most pervasive consequence of teenage pregnancy is unrealized educational achievement (Leader, 1993). The unfolding future and all it has to offer hinges on an adequate education. Zelnik et al. (1981) described education as the “gateway to the future” and suggested that it is a “mechanism highly vulnerable to damage from early childhood” (p. 56).

Academic Performance

Not all agree on the direction of the effect of schooling. Some see unrealized

education as a consequence of early parenthood. Others see teenage pregnancy as a consequence of poor educational performance. Yet another view is that the relationship works in both directions. Card and Wise (1978) took the position that teenage pregnancy plays a causal role in truncated education. Hayes (1987) suggested that the causal relationship works in both directions, especially for older teenage parents. The Children's Defense Fund (1987) study supported the bidirectional linear relationship between teenage pregnancy and school failure.

Taking a third position, that is, poor educational performance predisposes the teenager to early parenthood, were Jones et al. (1986) and Adler, Bates, and Merdinger (1985). The former contended that problems at school often take place before the pregnancy, while the latter submitted that "poor academic performance may predispose an adolescent to a youthful pregnancy" (p. 185). To further support this point, Polit and Kahn (1987), in commenting on the strategic relevance of school to the teenager, advanced the argument that "the causal sequence runs from schooling to pregnancy rather than vice versa" (p. 133).

Whatever the linear relationship, there is evidence to indicate that the teenager who becomes a parent falls far behind in educational achievement when compared with peers who delayed parenting. Mott and Marsiglio (1985) found that women who have given birth early are much less likely to have subsequently obtained a high-school diploma than women who waited until their 20s to do so. While there is evidence that the picture is not as bleak now as before, that more teenage mothers are now graduating from high school than ever before, the fact still remains that only about half of those who had

borne children by age 17 will have graduated by age 30 (Alan Guttmacher Institute, 1993). Furthermore, even when they do receive a high-school diploma, they are not as likely as their counterparts to pursue a college education (Caldas, 1993).

The United Nations (1989) report on several developing countries in various hemispheres found that, in every country, women with the highest levels of education were less likely than women with no education to have experienced an early birth. In St. Kitts-Nevis, this phenomenon may not be very different.

Motivation

Motivation is closely linked with schooling. There would perhaps be little debate that a motivated student who is achieving well at school has more to lose by an early pregnancy than a counterpart who is performing poorly. According to the Children's Defense Fund (1987), teenage girls who have poor basic skills are five times as likely to become mothers by age 16 as those with average basic skills. The motivation to avoid pregnancy is what is missing in many teenage girls, even if there was not the desire to become pregnant (Moore, 1985). Those who do well academically will be motivated to complete their education and will have established career goals. These girls are also said to be more likely to use contraception, if sexually active, or to demonstrate no interest in males.

However, as suggested by some, poor academic performance predisposes a student to be disaffected with school. Poor school performance may create a desire to succeed in other spheres, hence the risk of pregnancy (Held, 1981). In fact, Dryfoos (1985) posited that pregnant teenage girls see little need to terminate a pregnancy or to

prevent the next one in view of low school achievement and limited employment opportunities. On this issue, Chilman (1978) stated that lack of academic success is a motivator to desire success in social relationships and concentration on sexual and relationship matters. Conversely, if the teenage girl is doing well academically, she would be less interested in the opposite sex and less interesting to them. Therefore a positive attitude toward education, high levels of educational achievement, and clear educational goals seem to diminish premarital coitus among Black and White girls.

On the issue of expanding the school role, Polit and Kahn (1987) proposed four arguments. First, school influences the lives of all children. Second, since the single-best-documented consequence of an early pregnancy is truncated education, it makes schooling all the more relevant. The third reason is that, even though there is only limited research to support the position, schooling has a causal effect on pregnancy, since many who later become pregnant had already dropped out of school. The final reason is that above everything else, education is still the best means for upward mobility.

Empirical Findings for School Variables

Three studies emerged in the literature that directly address the question of teenage pregnancy in the school context. Over a 2-year period, Polit and Kahn (1987) examined the school-related experiences of a sample of 789 young disadvantaged mothers. At baseline, three quarters of the girls were at least 1 year behind in grade. By the end of the study, 20% had received their diplomas or GED and more than 50% who were not in school at the end of the study planned to return. The authors suggested that the efforts to keep adolescents in school during their pregnancies and to get them to return

soon after delivery could lead to long-term educational payoffs. They also found that those adolescents not in school at baseline were less likely to have a positive school status at the end. They discovered that educational counseling post partum made significant differences between those who did and those who did not receive this service.

The second study described an aggressive, proactive program among 6th- to 8th- graders in a middle school in Baltimore, Maryland. The goal of the program was to delay sexual activity among students 10 to 14 years old. As a result of this program involving teachers and administrators, there was no pregnancy in the sixth grade during the first year, and none in the seventh grade during the second year. In that year, there was one pregnancy in the sixth grade--a transferring student. Students in this program were encouraged to set goals. According to a spokesperson: "Our position is that abstinence is the first way to go and the best way to go" (Valentine, 1992).

A third study was based on births in Baltimore City, Maryland, in 1983. Larger proportions of Black teenage girls as opposed to their White counterparts reported receiving good grades prior to the pregnancy (Hardy & Zabin, 1991). Their White counterparts tended to report fair or poor grades. In addition, Blacks were twice as likely to report fewer absences from school than the Whites. These findings seem to show that, with respect to education, the effects of a pregnancy, at least in this sample, are different for different ethnic groups. While for Blacks teenage pregnancy seems to play a causal role in truncated education, in the case of Whites it appears that poor school performance plays a causal role.

Programs: Community and School

Many efforts have been made to prevent teenage pregnancy and all with varying degrees of success. Other programs have addressed pre- and post-natal services. For a comprehensive look at programs that have been tried and some that have worked, the reader may consult Miller et al. (1992), and Lindsay and Rodine (1989). This section briefly focuses on some programs that have been tested, and shares the results. Some of the programs were community-based while others were school-based.

School-based Programs

Philliber and Allen (1992) described Teen Outreach, which is a school-based program designed to prevent early pregnancy and to encourage regular progress in school. Their report is based on data collected over a 5-school-year period. Results show that Teen Outreach students experienced fewer pregnancies, fewer courses failed, fewer school suspensions, and lower rates of school dropouts than their companions who were not members of Teen Outreach.

Another type of research was an overview of school-based programs in San Francisco, Indiana, Texas, Michigan, Mississippi, and Florida (Kirby & Waszak, 1992). Data from the student health survey were used to assess the impact of the school-based clinics on the sexual activity of students. Overall, clinics were not found to increase sexual activity, regardless of how services were dispensed. However, the presence of school-based clinics did not significantly reduce the schoolwide pregnancy rates.

The Johns Hopkins Program was designed to reduce the rate of unintended conception in urban junior and senior high schools in the Baltimore area. The entire

school population in four schools was exposed to the programs. Assessments of the effects of the program led to the conclusion that abortion and pregnancy rates can be reduced, and sexual onset postponed by one and the same program (Zabin, 1992).

One final school-based program is the St. Paul Maternal and Infant Care Project, in Minnesota. Contraceptive counseling, weight reduction, and drug education were some of the services offered. In the first 3 years of the operation, a 56% reduction in student fertility was noted. Furthermore, those who continued their education and who had been pregnant had no repeat pregnancies (Mitchell, 1984).

Community-based Programs

Research on most community-based programs is either nonexistent or the projects are ongoing. The Parents and Adolescents Can Talk (PACT), a family-oriented program, was developed in Montana by parents, clergy, a health care agency, and education personnel. Aimed at 5th- through 12th-graders, the main purpose of the program is to help parents reclaim their responsibility as the primary sex educators of their children, and to facilitate family communication on sexuality issues. No outcome results are reported, but favorable responses from parents are shared (Brindis, 1991).

The Teenage Parent Program (TAPP) of Kentucky developed a Siblings Program as a pregnancy prevention strategy for brothers and sisters of TAPP students. Divided into age groups, the children are involved in activities that build positive self-image and confidence. The goal is preventing negative behavior and premature pregnancy. Again, no outcome studies were reported (Mitchell, 1984).

The I Have A Future (IHAF) Program at Meharry Medical College is a 7-year

longitudinal program which started in the late 1980s, and is based on 5 modules. At the time this report was done (Foster et al., 1990), only Module 1, which deals with substance abuse prevention had been studied. There were significant improved attitudes, knowledge, and decision-making.

Battle (1988/1989) discussed several intervention programs targeting teenagers. One such is the HUB program in New York's South Bronx designed in the early 1980s by Planned Parenthood. Both a health center and a learning center, this program offers social activities, computer and cooking classes, peer tutoring programs, and college and career counseling. They also provide workshops on sexuality for families. The focus is on building self-esteem so that sex (sexual intercourse) becomes a quality of life issue, not a reproductive one. Of the 140 enrollees for the first 3 years, there were only two pregnancies. The report does not explain whether this was due to diminished sexual activity among these teenagers or increased use of contraceptives, however.

By far the best researched of the community-based programs found is the Primary Pregnancy Prevention Program of the Children's Aid Society, also called the Carrera Program. This is run in the Bronx and Manhattan areas of New York and is a formal 15-week educational experience held separately for teenagers and for parents. Topics discussed include reproduction, gender roles, and family. All participants are guaranteed admission as a freshman at Hunter College. The aim is to help inner-city teen boys and girls to get a life before conceiving one. The goal is to reduce teenage pregnancy not so much by preaching against it, as by bringing enough structure and accomplishment to the lives of the kids involved that they keep themselves in line.

Outcome studies show that with respect to pregnancies in 1-year among 15- to 19-year-olds, 8% of the teenagers in the Carrera Program experienced a pregnancy, compared to 19% of Blacks nationally, and 13% among Hispanics (Alan Guttmacher Institute, 1994). Reporting on births to the same age group, adolescents from the Carrera Program experienced no births in 1990 compared to 11% and 10% to Blacks and Hispanics respectively (National Center for Health Statistics, 1991).

Commenting on programs targeted at prevention of teenage pregnancy, Lindsay and Rodine (1989) suggested that schools, parents, agencies, churches, and other segments of the community need to work together if a difference is to be made in young people's lives. Based on their experience with program development, Harris, Baird, Clyburn, and Mara (1983), in developing a program acceptable to the community, indicated that a first step should be to assess the community value system and preferences. This route is preferable to statistics, literature, and consultation with the experts. Community involvement increases the likelihood of a success story.

Chapter Summary

This literature review has examined four broad areas which are thought to be associated with teenage pregnancy. Some empirical support exists for the effects or influence of family, social values, personality/self-esteem, and school on the teenager. Although there is not necessarily total agreement among sources cited, enough is presented to convince the reader of the seriousness of the problem. Enough has also been presented to show which interventions have been tried and with what results. This might act as a guide for any future programs that one might develop to target this problem.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this study was to examine some of the factors related to teenage pregnancy in St. Kitts-Nevis. The major interest was to determine what factors might lead to a pregnancy during the teen years. Family factors such as parent-child (father-daughter, mother-daughter) relationships, domestic violence, childhood sexual abuse, intergenerational teenage pregnancy, and father presence/absence were examined. Other variables studied were the youth's attitude to church, church attendance and involvement, and self-esteem. This chapter addresses the methodology used in the study. It discusses the design of the study, the population and sample, instrumentation, and procedure. The chapter presents a discussion on the analysis and treatment of the data and the research questions which guided the study.

Design

This correlational study used the survey method of research in which a battery of instruments was administered to a group of pregnant and nonpregnant teenagers in St. Kitts-Nevis. The battery of instruments consisted of a modified Coopersmith Self-Esteem Inventory (School Form) and the Factors Related to Teenage Pregnancy Questionnaire

which I developed in 1995.

Major Variables

The dependent variable in this study was teenage pregnancy. Major independent variables included: father-daughter relationship, mother-daughter relationship, father presence/absence. Other independent variables were: domestic violence, childhood sexual abuse, intergenerational teenage pregnancy, church attendance and involvement, and self-esteem.

Population and Sample

The population was drawn from females 12 to 21 years of age residing in St. Kitts-Nevis, West Indies. These age limits were used to incorporate the age group in the secondary schools. In addition, because many young people tend to migrate in search of a better economic life, shrinking the age group might have restricted the sample size, rendering great difficulty in accessing the pregnant sample. The subjects for this study fell into two groups. One group comprised young women within the stated age range who became pregnant during their teenage years, whether or not the pregnancy was carried to term. Young women who reported that they were never pregnant during the teenage years comprised the comparative nonpregnant group. Subjects were accessed through the various health centers, the Departments of Health and Women's Affairs, churches, and schools. All respondents were invited to complete a survey questionnaire.

Sample Size

St. Kitts-Nevis has a small population of about 40,000 persons. An earlier study

I did in 1993 resulted in a sample size of 66 (Leader, 1993). For this study, I aimed for a larger sample size. To increase the possibility of a larger sample size, the age range of respondents fell between 12 years and 21 years. Restricting the age range to the teen years only was thought not to be in the best interest of the study.

Demographic data for St. Kitts-Nevis from the 1991 census indicate that there were 2,270 females ages 10 to 14, and 1,953 females ages 15 to 19. In 1991 the female population between 5 and 9 years of age was 2,369, which means that some of these females are now teenagers. Although it is uncertain what effect migration has had on the population growth or stability, it seemed reasonable to aim for a sample size of approximately 400. The results from this size of a sample would be more generalizable to the population than my earlier research which was based on a sample of 66 subjects.

Besides involving the schools, as in the earlier study, I involved several community agencies, health centers, and hospitals to which the target population has regular access. Subjects responded to the questionnaire based on how they recall feeling about various issues during their childhood and early teen years. Guidance counselors in secondary schools, public health nurses, and nurses were among those who were involved in collecting information from young women with whom they came into contact in their work. It was more likely that those subjects accessed in health centers would have had a pregnancy, whereas in the school setting it would be more difficult to determine the pregnancy status of potential respondents.

Instrumentation

Two instruments were combined in the survey questionnaire used in the study.

One measured the self-esteem of the respondents; the other measured the remaining variables including the family, personal, and societal/cultural factors already identified, along with other demographic information.

Coopersmith Self-Esteem Inventory (SEI)

The SEI was designed to measure how one evaluates attitudes toward one's self in social, academic, family, and personal areas of experience. Self-esteem is a personal judgment of worthiness expressed in the attitudes a person holds toward the self. The School Form, formerly called Form A or Long Form, was developed in 1967 and consists of 58 items. Fifty of these items involve self-esteem and 8 items constitute a Lie Scale, used to measure the respondent's defensiveness or test wiseness. This form was used on a group basis with populations ranging in age from 9 to adulthood. The two other forms (School Short Form and the Adult Form) were developed to make accommodations for time limitations, differences in language level, and situational descriptions. All forms are used for males and females, for all ethnic groups, and many special populations. All SEI items are short statements such as, "I'm a lot of fun to be with" and are answered "like me" or "unlike me."

The School Form was originally worded for children between 8 and 10 years old. Most of the items were based on items from the Rogers and Dymond (1954) scale. It was tested for comprehensibility on 30 children. The final form of 50 items was administered to 87 children and a Grade 5 and a Grade 6 class. Scores ranged between 40 and 100, with the highest possible score being 100, and the distribution was skewed in the direction of high self-esteem. The mean score for the 44 males was 81.3 with a standard

deviation of 12.2. In comparison, the mean for the 43 girls was 83.3 with a standard deviation of 16.7. These differences were not statistically significant.

The School Form was later administered to 1,748 children in public schools in central Connecticut. The respondents were more diverse than the smaller group in terms of ability, interest, and social background. The test was conducted in classrooms. The mean for males was 70.1 with a standard deviation of 13.8. The mean for the females was 72.2 and the standard deviation was 12.8. The distribution was skewed in the area of high self-esteem as with the smaller group, but the mean differences were not statistically significant.

The Adult Form used is primarily for individuals above 15 years of age and consists of 25 items adapted from the School Short Form. The latter has a correlation of .86 with the original form with a sample size of 121. The Adult Form has a correlation $>.80$ with the School Short Form for 3 samples of high school and college students ($n = 647$).

The recommended uses of the SEI include individual assessment and classroom screening, instructional planning, program evaluation, and clinical and research studies. Coopersmith's initial study (1967) included investigations of some antecedents, consequences, and correlates of self-esteem. These include the influence of social background, parental characteristics, subjects' characteristics, subjects' early history and experiences, and parent-child relationships.

While a person's appraisal of his or her self-esteem will usually remain consistent over a period of several years, momentary or short-lived changes in a person's family or

school situation may temporarily affect self-esteem. Furthermore, the author of the inventory also suggested that some ethnic, cultural, or religious groups could possibly have values different from those inherent in the SEI statements. For such, the SEI may not be a valid measure of self-esteem. The results may, however, be very important in describing the attitudes and functioning of such a group. The School Form has been administered to Black, Spanish-surnamed, and Native American children as well as children with disabilities from Grades 3 to 8. These children represented all socioeconomic ranges.

The reliability of the SEI was reported by several authors. Spatz and Johnston (1973) administered the SEI to more than 600 students in Grades 5, 9, and 12 in a rural school district. Kuder-Richardson reliability estimates were calculated and obtained coefficients of .81 for Grade 5, .86 for Grade 9, and .80 for Grade 12. These coefficients are indicative of adequate internal consistency for students in these grades.

Kimball (1972) administered the SEI to about 7,600 public school children in Grades 4 through 8. This sample included children of all socioeconomic ranges, and Black and Spanish-surnamed students. The Kuder-Richardson reliability estimates for each grade level resulted in coefficients from .87 to .92.

Fullerton (1972) reported a split-half reliability coefficient of .87 for 104 students in Grades 5 and 6. With respect to stability, Rubin (1978) did a 3-year longitudinal study of 380 children ages 9, 12, and 15. It was found that children who tested first at age 12 and then at 15 showed greater test-retest consistency ($r = .64$) than children first tested at age 9 and then at age 12 ($r = .42$). Rubin concluded that self-esteem becomes more stable

as young people move into early adolescence.

Fullerton (1972) reported a coefficient of .64 for 104 children in Grades 5 and 6 tested 1 year apart. Test-retest reliability originally reported by Coopersmith (1967) was .88 for a sample of 50 children in Grade 5 with a 5-week interval.

To test the SEI construct validity, Kokenes (1974, 1978) investigated 7,600 students in Grades 4 through 8. She observed the comparative importance of the home, peers, and school to the global self-esteem of preadolescents and adolescents. Her study confirmed the construct validity of the subscales proposed by Coopersmith. The School Form consisting of 58 items has a Lie Scale (8 items), and four subscales (50 items). The identified subscales are: General Self; Social Self-Peers; Home-Parents; and School-Academic. These subscales are intended to allow for variances in perceptions of self-esteem in different areas of experience. The School Short Form, however, does not elicit subscale scores. The correlation between these two forms based on 121 subjects was .86.

Simon and Simon (1975), who correlated the SEI with the SRA Achievement Series scores of 87 children in Grade 4, obtained a coefficient of .33. The Lie Scale of the SEI is generally considered the best predictor, based on regression analysis of SEI subscales scores on MAT GES done by Donaldson (1974). Overall, Donaldson concluded that the SEI was a fair predictor of reading achievement.

With respect to factor analyses, Kokenes (1973) conducted a factor analysis on the SEI responses of 7,600 children of all socioeconomic levels, from Grades 4 through 8. Four pairs of bipolar factors emerged from the factor analysis. Each pair was highly congruent with the subscales of the SEI. These factors were related to School-Academic

subscale (Success or Failure); Social Self-Peers subscale (Success and Failure); Home-Parents subscale (Good-Poor); and General Self subscale (Perceived Adequacy of Self, Perceived Inadequacy of Self, and Rejection of Self).

To carry out this study, permission was sought from Consulting Psychologists Press to change the "Like Me," "Unlike Me" format of response on the School Short Form of 25 items to an "Agree," "Disagree" format thought to be more easily handled by respondents. The reliability coefficient resulting from the data provided by this sample was .73.

The Factors Related to Teenage Pregnancy Questionnaire

Originally, there were five factors and a demographic section in this instrument. These factors were: Attitude to Father, Attitude to Mother, Attitude to Domestic Violence, Attitude to Church, and Attitude to Drug/Alcohol Use. Of the original 39 items, 9 were demographic. The remaining 30 items were spread among the five factors measuring Attitude to Father (8 items), Attitude to Mother (8 items), Attitude to Domestic Violence (6 items), Attitude to Church (5 items) and Attitude to Drug/Alcohol Use (3 items).

The responses for the items of this instrument were recorded in a Likert-type scale ranging from Never to Always. Responses were scored from 1 to 5, 1 meaning Never, and 5 meaning Always. A copy of the instrument is included in Appendix A.

To test the validity and reliability of the subscales of this instrument, I conducted a pilot study with 81 subjects. The subjects fell in either of two groups: females who became teenage parents and those who did not. Respondents were accessed through

schools and area agencies in Michigan and Indiana. Some of the specific locations were Andrews University--Lamson Hall residents and Andrews Academy students comprising primarily international students of Caribbean descent. A few agencies in Benton Harbor participated, including the Berrien County Health Department. This area was of special importance as it has one of the highest rates of birth to teenagers in the state of Michigan. Most of the respondents were of African or Caucasian origin. In order not to skew the respondents in the direction of young women headed for college, the Benton Harbor area provided the opportunity to incorporate a wider social spectrum of individuals.

Content validity was established via several steps. First, I reviewed the literature on the topic of teenage pregnancy, and had brief contact with the author of a study conducted in Jamaica (Keddie, 1992). Some ideas were gleaned from instruments listed in Corcoran and Fischer (1987). Items were generated for a questionnaire during a class on Scaling. Next, the professor teaching the course and members of the class served as judges by providing feedback on the appropriateness of the individual items. Foremost in considering content validity was whether the various items conceptually fit the domain of teenage pregnancy and the various areas that I wanted to consider in the study.

Subsequently, factor analysis was performed on the data to establish whether items fell into their underlying constructs. This process was facilitated by using Principal Component Analysis and then Varimax Rotations. All but two items fell into their conceptualized domains. These two items were subsequently deleted. In Factor 1 (Attitude to Father), when the two items were deleted, the highest and lowest loadings were .86 and .75. Factor 2 (Attitude to Mother) had extreme loadings of .86 to .73.

Domestic Violence, the third factor, had loadings ranging from .90 to .56, while for Factor 4 (Attitude to Church), the range was between .83 to .71. Factor 5 was comprised of items related to Attitude to Drug/Alcohol Use. The loadings for this factor ranged between .74 to .61.

The combined factors had a reliability coefficient of .81. The means and standard deviations for the items of the various factors are presented in separate tables in this section. Internal consistency estimates are also presented. Those items in the Attitude to Father factor are presented in Table 1, and Table 2 shows those items in the Attitude to Mother factor.

Both factors--Attitude to Father and Attitude to Mother--had eight items each. The means for the Attitude to Father Factor ranged between 2.69 (Occasionally) to 3.59 (Often). In comparison, the means for the Attitude to Mother Factor ranged between 3.3 to 4.5, that is, between Sometimes and Always. This seems to suggest that the respondents reported having a more positive attitude to their mother than to their father. The reliability coefficient for both factors was approximately .90.

The means and standard deviations for the six items in the Domestic Violence Factor are included in Table 3. The means were low, ranging between 1.1 (Never) to 2.5 (Sometimes). The overall reliability coefficient was only slightly lower than the two previous factors (.89).

Table 4 presents the descriptive statistics for the Attitude to Church Factor. There were five items. The means ranged between 3.2 and 3.9. The overall reliability coefficient of this factor was comparable to that of the Domestic Violence Factor.

Table 1**Means and Standard Deviations for Individual Variables in the Attitude to Father Factor**

Variable Name	Means	SD
Good Relationship	2.988	1.512
Felt Understood	2.815	1.467
Companionship	3.000	1.466
Felt Anger	2.691	1.281
Good Example	3.000	1.620
Felt Accepted	3.296	1.691
Time to Talk	2.840	1.662
Felt Loved	3.593	1.701

Note. Alpha = .90; Minimum = 1.000; Maximum = 5.000; N = 81.

Table 2**Means and Standard Deviations for Individual Variables in the Attitude to Mother Factor**

Variable Name	Means	SD
Good Relationship	3.864	1.115
Felt Understood	3.494	1.333
Companionship	3.852	1.205
Felt Anger	3.333	1.118
Good Example	3.778	1.245
Felt Accepted	4.160	1.188
Time to Talk	3.889	1.304
Felt Loved	4.469	1.050

Note. Alpha = .91; Minimum = 1.000; Maximum = 5.000; N = 81.

Table 3Means and Standard Deviations for Individual Items in the Domestic Violence Factor

Variable Name	Means	SD
Physical Fights	1.827	1.233
Verbal Fights	2.494	1.352
Feeling Upset	2.556	2.098
Feeling Insecure	1.704	1.647
Feeling Left Out	1.173	1.311
Feeling Responsible	1.074	1.093

Note. Alpha = .89; Maximum = 5.000; Minimum = 1.000; N = 81.

Table 4Means and Standard Deviations for the Attitude to Church Factor

Variable Name	Means	SD
Attend	3.828	1.330
Participate	3.284	1.443
Like Church	3.728	1.314
Important	3.914	1.306
Spirituality	3.593	1.473

Note. Alpha = .89; Maximum = 5.000; Minimum = 1.000; N = 81.

The present study included these four factors. The Attitude to Father and Attitude to Mother Factors were adapted from the Child's Attitude to Father (CAF) and Child's Attitude to Mother (CAM) Scales developed by Walter W. Hudson, and found in Corcoran and Fischer (1987). The demographic section of the original questionnaire was

expanded to include variables that would yield a more comprehensive history on the sexual background of the sample. The final questionnaire contained 68 items including the 25 SEI (School Short Form) items (see Appendix A).

Procedure

Subjects for the study came from secondary schools, health centers, hospitals, and other agencies including churches. The former Chief Education Officer, Mr. Joseph J. Halliday, was the main liaison between the Ministries of Education and Health, the research venues, and individuals selected to assist with the collection of the data. Permission to survey the subjects was requested and granted through the Ministry of Education. Appendix B includes a copy of this letter. Further requests for permission were made to the high schools under the Ministry of Education. Approval was also granted from the Andrews University Human Subjects Review Board in July 1995. (A copy of this letter is included in Appendix B.)

Subjects responded to the questionnaire based on how they recall feeling about various issues during their childhood and early teen years. Guidance counselors in secondary schools, public health nurses, and nurses were among those who were involved in collecting information from young women with whom they came into contact in their work. It was more likely that those subjects accessed in health centers would have had a pregnancy, whereas in the school setting it would be more difficult to determine the pregnancy status of potential respondents.

Data were collected during the 1995-96 school year, between April and June. Questionnaires were mailed to St. Kitts-Nevis to Mr. J. J. Halliday in April 1996. Copies

were color coded so that the 150 questionnaires printed on grey paper were then sent to Mr. Conrad Liburd in Nevis. The remaining 350 done on ivory paper remained in St. Kitts. Upon receiving the questionnaires, both men then contacted schools and enlisted the cooperation of other individuals to help in collecting the information. These individuals were given specific instructions about the study and asked to give the questionnaires to individual females after explaining the purpose of the study and allowing them to read the accompanying cover letter.

Specifically, individuals collecting data were instructed to approach young girls of high school age whom they saw in their role as guidance counselors in small groups or individually in the case of the schools. This was done privately in their office. In other settings such as health centers and agencies a similar procedure was followed. Young girls who fit the specified age group were approached by the attending nurses and were informed about the survey when they went for pre- or post-natal visits. In all cases, they were given the option to decline participating in the survey without penalty.

Each participant also received a small token: either an Andrews University souvenir pencil or mini-planner. They were invited to call Mr. Halliday or myself if they had any questions about the study. I received two such calls from students of the Sandy Point High School in St. Kitts.

Those who agreed to be part of the study were given the option to fill out the questionnaire immediately or to fill it out and then return it by mail to Mr. Halliday/Mr. Liburd, or by hand to the front office of the agency where they received it in the first place. Consenting respondents filled out the questionnaires in small groups or

individually at the health centers or in schools under the administration of guidance counselors, teachers, or nurses. I participated briefly in the data collection at three health centers in St. Kitts and Nevis during a brief visit in June of 1996. In all these instances, the respondents completed the survey instrument immediately.

Although the intention was to identify the pregnant and nonpregnant respondents through the questionnaire, in some venues such as hospitals and health centers it was likely that some of the respondents were known to be pregnant at the time of participation in the study. Some others may have been known to be mothers already. However, one question in the demographic section of the questionnaire served to identify the pregnant and nonpregnant participants.

Treatment of Data

Each item on the SEI received one of two responses labeled 1-2, where 1 means "Agree" and 2 means "Disagree." Each item on the four scales of the Factors Related to Teenage Pregnancy instrument received responses labeled 1-5 where 1 means "Never," 2 means "Occasionally," 3 means "Sometimes," 4 means "Often," and 5 means "Always." In the process of the analyses of the data, the item on anger on both the Attitude to Mother and the Attitude to Father Factors was recoded (items 4 and 12). The demographic items did not have this kind of uniformity. Some of the data are nominal. An example is "During your childhood and early teen years, did your father live in the home? Yes; No." Other data are interval. "Your present age is 12-13 14-15 16-17 18-19 20-21" is an item that will generate this type of data.

Items 1 to 28 were coded 1-5. A zero was given in cases where the item was not

applicable. For items 28 to 52, "Agree" was given a code of 1, and a 2 for "Disagree." For items 54, 56, 62, and 65, "Yes" was coded 1 and "No," 2. With the exception of items 54 and 56, all items between items 53 and 61 were given codes between 0 and 5. Responses to item 63 were coded 1-5. Those responses for item 64 were coded 1-8. For item 66, the responses were coded 1-6. Each of the categories for items 67 and 68 were given 0 for "No" and 1 for "Yes."

Analysis of Data

Descriptive statistics were compiled for the groups. The two groups of interest were the group of respondents who were pregnant as teenagers, and their counterparts who did not become pregnant during their teenage years. Comparisons were done between the groups on several variables. The study was correlational in nature and specifically involved analyses using chi-square and *t*-tests.

Null Hypotheses

The following null hypotheses were tested:

1a. There is no significant difference in father-daughter or mother-daughter relationships between the pregnant teenagers and their nonpregnant peers.

1b. There is no significant relationship between father absence/presence and the occurrence or non-occurrence of teenage pregnancy.

2. There is no significant relationship between intergenerational teenage pregnancy and the occurrence or non-occurrence of teenage pregnancy.

3. There is no significant difference in the occurrence or non-occurrence of

domestic violence between the families of the pregnant teenagers and their nonpregnant peers.

4. There is no significant relationship between childhood sexual abuse and the occurrence or non-occurrence of teenage pregnancy.

5. There is no significant difference in church attendance and involvement in church-related activities between the pregnant teenagers and their nonpregnant peers.

6. There is no significant difference in self-esteem between the pregnant teenagers and their nonpregnant peers.

These hypotheses were analyzed using several procedures. Hypotheses 1a, 3, 5, and 6 were analyzed by *t*-tests. Chi-square analysis was used to test hypotheses 1b, 2, and 4. The *t*-test procedure serves the purpose of determining whether significant differences exist between two sample means. This procedure is satisfactory for large samples, and particularly appropriate when samples are small (Isaac & Michael, 1971). Chi-square answers questions about frequencies. This procedure can be used to determine whether or not there is a significant difference in the proportions in the dimensions being tested. It can be used to determine whether or not relationships exist between dimensions. The chi-square procedure can be used to classify patterns with more than two dimensions.

CHAPTER IV

ANALYSIS OF DATA

This study was undertaken to examine some factors that may be related to teenage pregnancy in St. Kitts and Nevis. The family factors that were investigated included mother-daughter relationship, father-daughter relationship, father presence/absence, intergenerational teenage pregnancy, childhood sexual abuse, and domestic violence. Socially, the relevance of church attendance and participation in church-related activities was studied. The aspect of personality under investigation is the self-esteem of the respondents.

Subjects were asked to respond to the survey questionnaire as they recall their experience in their pre-teenage and teenage years. The data collected came from two samples: one from a group of females who reported becoming pregnant during their teenage years, the other group consisted of females who had not become pregnant during the same developmental period. The sample groups came from two islands: St. Kitts (Christopher) and Nevis. This chapter presents the description of the sample and the results of the analyses done in response to the hypotheses that were tested.

Demographic Data of Sample

Four hundred questionnaires were distributed and 322 returned. All the returned questionnaires from Nevis were usable, but three of those from St. Kitts were removed from the sample because of large amounts of missing data. Seventy-one percent of the final sample came from St. Kitts (227), and 29% (92) from Nevis. Of the 92 respondents from Nevis, 51 (55%) reported an early pregnancy. The total number of subjects from St. Kitts included in the analyses was 227, of whom 67 (30%) reported a pregnancy during their teenage years. In view of the nature of the study, all respondents to the survey were females between the ages of 12 and 21. Data concerning the pregnancy status of the sample by country are presented in Table 5.

Table 5

Description of Sample by Country and Pregnancy Status

Country	Pregnant		Non-Pregnant	
	<i>n</i>	(%)	<i>n</i>	(%)
St. Kitts	67	(29.5)	160	(70.5)
Nevis	51	(55.4)	41	(44.6)
TOTAL	118		201	

Several questions in this section generated information regarding the history of the sexual involvement of the sample. Those results are reported before focus is shifted to the findings for the hypotheses.

The greatest distribution of the sample under study fell within the 16-17 age group, and the smallest in the 12-13 age group. Table 6 presents the age of the entire sample at the time this survey was done.

Table 6

Age Groups of the Entire Sample and Corresponding Frequencies Within Each Group

Age Groups of Sample	Frequency	Overall Percentage
12-13	6	01.9
14-15	43	13.5
16-17	126	39.5
18-19	84	26.3
20-21	54	18.2
Missing (no age given)	2	00.6

From among the sample, 201 denied a pregnancy during the teen years. The remaining 118 were asked to indicate the age at which they experienced their first pregnancy. In Table 7, this information is presented. As shown, for the 16-17 and 18-19 age groups, the greater proportion of their pregnancies occurred in the preceding age group.

In an earlier discussion, it was mentioned that when a pregnancy occurs, the practice of resolving it with marriage has diminished over the last 3 decades. Two respondents reported that they were married at the time of the survey. The case is often

Table 7Age of Occurrence of First Pregnancy by Current Age (Pregnant Group Only)

Current Age	N	Age Became Pregnant*			
		12-13	14-15	16-17	18-19
12-13	1	1 (100.00)			
14-15	3	1 (33.33)	2 (66.67)		
16-17**	33	2 (06.06)	17 (51.52)	12 (36.36)	
18-19	40	1 (02.50)	8 (20.00)	24 (60.00)	7 (17.50)
20-21	41	-----	7 (17.07)	16 (39.02)	18 (43.90)
Total	118	5	34	52	25

Note. Not shown on table is one reported pregnancy at age 10-11 by a 16-17-year-old respondent.

* Numbers in parentheses are percentages.

** One is missing, thus 31 shown and one other already accounted for.

that one pregnancy follows another. The emphasis of some family planning agencies including St. Kitts, for example, has been to help young teenage mothers avoid repeated pregnancies while still in their teens. In this sample, the majority (69%) of the 117 teenage mothers who responded to this item reported only one pregnancy. One fourth of them reported two to three pregnancies as shown in Table 8. One of the 118 from among the pregnant sample did not respond to this item.

Table 8Number of Pregnancies Experienced by Age 19

Number of Pregnancies	Frequency	Percentage
1	81	69.00
2	25	21.00
3	5	4.00
>3	6	5.00

A major concern of the researcher in conceptualizing this study was to make a distinction between a pregnancy and a live birth. Table 9 presents the number of live births, abortions, and miscarriages experienced by number of pregnancies. As shown, most pregnancies were brought to term but abortions did occur. Except for the one individual with six pregnancies, the highest proportions of abortions occurred among respondents reporting 4 pregnancies (45%), and the lowest to those experiencing their first pregnancy (07%). Miscarriages were slightly less likely to occur than abortions.

Table 10 shows a further breakdown of the number of respondents with pregnancies brought to term by number of reported pregnancies. Note, for example, that of the 25 respondents reporting 2 pregnancies, 11 of them brought one pregnancy to term, while 14 brought both pregnancies to term.

Table 9Number of Live Births, Abortions, and Miscarriages by Number of Pregnancies

Number of Pregnancies	<i>N</i>	Total Number of Pregnancies	Live Births	Abortions	Miscarriages
1	81*	81	65	6	1
2	25	50	39	6	5
3	5	15	9	3	3
4	5	20	11	9	0
6	1	6	2	3	1
Total	117.	172	126	27	10

* Nine are missing due to omissions on some of the items, thus only 72 are shown.

Table 10Number of Live Births to Teens by Number of Reported Pregnancies

Number of Pregnancies	<i>N</i>	Number of Teens with Live Births	Number of Live Births	Total Live Births*
1	81	65	1	65
2	25	11 14	1 2	11 28
3	5	1 4	1 2	1 8
4	5	1 1 2	1 2 4	1 2 8
6	1	1	2	2

* This column adds up to 126 and corresponds with the 4th column in Table 9.

This survey also examined the number of sexual partners reported by both groups. Of the entire sample, 318 subjects responded to this item, 200 of whom denied an early pregnancy and 118 of whom had experienced a pregnancy. As expected, the pregnant sample had significantly more sexual partners than did the nonpregnant sample. However, 34% of the nonpregnant group were sexually active, half of whom reported having two or more partners. The chi-square procedure was run on this variable. The probability value indicates that at the .05 level, there is a significant relationship between the number of sexual partners and the likelihood of an early pregnancy between the pregnant and the nonpregnant groups. Table 11 presents the number of sexual partners by pregnancy status of the sample.

Table 11

Number of Partners by Pregnancy Status

Number of Partners	Pregnancy Status	
	Pregnant	Nonpregnant
	<i>n</i> (%)	<i>n</i> (%)
0	1* (.85)	132 (66.00)
1	43 (36.44)	34 (17.00)
2	34 (28.81)	24 (12.00)
3	13 (11.02)	8 (04.00)
>3	27 (22.88)	2 (01.00)

Note. $\chi^2 = 142.906$; $df = 4$; $p = .0000$

* Represents an inconsistent response, and cannot be interpreted as a Virgin Mary experience.

An area of interest in this study was whether individuals responsible for raising girl children in St. Kitts-Nevis make a difference in the occurrence of teenage pregnancy. One of the items in the demographic section extracted this information. The results of the chi-square analysis used in examining this variable are presented in Table 12. The five groups under consideration were: Both Parents, Mother, Father, Grandparents, and Other. No basis emerged for arguing that, for this sample, there exists a relationship between early pregnancy and the person or persons responsible for raising young girls in St. Kitts and Nevis ($p = .809$).

One variable examined the reported church affiliation of the sample at the time when they were growing up. Of the total group, 11 subjects reported having no church affiliation during the formative years. Anglicans comprised the greatest proportion of

Table 12

Chi-Square, Degrees of Freedom, and Probability for Persons Raising Sample

Persons Raising	Pregnancy Status	
	Pregnant	Nonpregnant
	<i>n</i> (%)	<i>n</i> (%)
Both Parents	35 (30.17)	63 (31.66)
Mother	51 (43.97)	96 (48.24)
Father	2 (01.72)	3 (01.51)
Grandparents	23 (19.83)	29 (14.57)
Other	5 (04.31)	8 (04.02)

Note. $X^2 = 1.601$; $df = 4$; $p = .809$.

respondents (28.25%), followed by Methodists (19.36%), Evangelicals/Pentecostals (16.51%), and Baptists (13.00%). Roman Catholics and Seventh-day Adventists comprised the smallest proportions of the overall sample with 6% each.

Table 13 presents pregnancy status by church affiliation. The lowest proportions of those reporting a pregnancy were Seventh-day Adventists and Evangelicals/Pentecostals respectively.

Without a context, these figures may appear very interesting. Caution, however, is advised considering the non-probability sampling procedure used in this study. Notably,

Table 13

Pregnancy Status by Religious Affiliation

Denomination	Pregnancy Status	
	Pregnant (n = 117)	Nonpregnant (n = 198)
	n (%)	n (%)
No Affiliation	6 (54.54)	5 (45.45)
Anglican	31 (34.83)	58 (65.17)
Baptist	17 (40.48)	25 (59.52)
Evangelical/Pentecostal	15 (29.41)	36 (70.58)
Methodist	21 (34.42)	40 (65.58)
Moravian	10 (41.67)	14 (58.33)
Roman Catholic	12 (66.67)	6 (33.33)
Seventh-day Adventist	5 (27.78)	13 (72.22)

Note. Numbers in parentheses represent percentages of the individual denominations.

the denominations with the smallest proportions among the sample, the Roman Catholics and Seventh-day Adventists, were in turn the most and least likely to have experienced a pregnancy during the teen years. Those not affiliated to "mainline" churches were more likely to avoid a pregnancy.

One of the research questions addressed the issue of childhood sexual abuse. The specifics of this are discussed in a later section. Several other items were built into the survey instrument to provide more in-depth information about the perpetrators and their victims. Of the overall sample, 52 (16.3%) reported that they had been sexually abused as children/adolescents. Twenty-seven (22.88%) were among the pregnant teenagers and 25 (12.63%) among the nonpregnant teenagers. In an attempt to identify who these perpetrators were, the respondents were asked to indicate by whom they had been sexually abused. The categories were: father, brother, uncle, grandfather, and other. Table 14 presents the data for this item. The "Other" category was the most likely category reported to have been the perpetrators in this regard. This included cousin (10) and friend (4). A cousin was equally likely to sexually abuse a young girl as an uncle. The most striking response was "sister" which occurred in three of the responses from Nevis. The remaining perpetrators were individuals who could be termed trusted individuals and friends of the family: godfather (1), stepfather (2), and various categories of friends (8). From among the other four categories, an uncle was the most likely perpetrator (19.2%), followed by a brother (13.5%). A grandfather was least likely to sexually abuse a girl child.

In response to another variable, respondents indicated at what age this abuse first occurred. Table 15 presents the breakdown of age at first sexual abuse. This was most

likely to have occurred at 12 or 13, and next likely to have occurred in the over 13 age group. The age groups at which sexual abuse was least likely to have taken place were in the 4-5 and 8-9 categories.

Table 14

Frequencies of Perpetrators of Child/Adolescent Sexual Abuse

Perpetrator	Frequency (Percentage)
Father	4 (07.7)
Brother	7 (13.5)
Uncle	10 (19.2)
Grandfather	1 (01.9)
Other	33 (63.5)

Note. These figures exceed 52 because, in a few cases, there were multiple perpetrators.

Table 15

Age of Initial Sexual Abuse

Age	Frequency (Percentage)
4-5	2 (03.8)
6-7	7 (13.5)
8-9	4 (07.7)
10-11	6 (11.5)
12-13	17 (32.7)
> 13	13 (25.0)

While 52 respondents reported having been sexually abused, only 49 responded to this item. Numbers in parenthesis represent percentages based on the 52 reporting sexual abuse.

Presentation of Analysis for the Hypotheses

In this section the data and the statistical analyses performed to test the hypotheses related to the research questions are presented.

Hypothesis 1a

Hypothesis 1a stated: *There is no significant difference in father-daughter, or mother-daughter relationships between teenage mothers and their nonpregnant peers.*

The *t*-test procedure was used to examine hypothesis 1a. Table 16 presents the means, standard deviations, and probability for all variables on the Attitude to Father Cluster which contained eight items. Responses for the pregnant group were approximately 3 on the 5-point scale. For the nonpregnant group, the responses were closer to 4.

Overall, the means indicate that, except for item 15 (father took time to talk to me), the nonpregnant sample rated their overall relationship with their father more positively than the pregnant group. The scale was reversed for the "felt anger" variable so that a high score meant a positive answer (little anger). Statistical analysis yielded significant differences between the groups on four of those items indicating that the nonpregnant respondents had a better relationship, experienced more companionship, felt more accepted, and felt more loved by their father than the pregnant respondents. The mean differences of .38, .47, .74, and .58 respectively were significant at the .05 level. The

Table 16

Means and Standard Deviations for Individual Variables in the Attitude to Father Cluster by Pregnancy Status.

Variable	Pregnancy Status						<i>t</i> Value	<i>df</i>	<i>p</i>
	Pregnant			Nonpregnant					
	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>	<i>n</i>			
Good Relation	2.784	1.256	116	3.167	1.491	197	-2.427	274	.0158*
Felt Understood	2.655	1.326	116	2.949	1.416	197	-1.815	311	.0704
Companionship	2.681	1.282	116	3.152	1.365	197	-3.015	311	.0028*
Felt Anger	3.293	1.265	116	3.497	1.232	195	-1.4	309	.1625
Good Example	2.921	1.383	114	3.182	1.504	197	-1.521	309	.1291
Felt Accepted	3.008	1.442	114	3.750	1.426	196	-4.394	308	.0000*
Time to Talk	2.706	1.318	116	2.690	1.388	197	.104	311	.9175
Felt Loved	3.232	1.441	116	3.817	1.391	197	-3.542	311	.0005*

* $p \leq .05$.

relationship, companionship, feeling accepted, and feeling loved.

A close examination of the analysis was done on the individual variables in the Attitude to Mother Cluster which contained the same items as in the Attitude to Father Cluster except that "mother" was substituted for "father." The null hypothesis was rejected for feeling that mother set a good example, feeling accepted, and feeling loved, on the basis of the *t*-test, and the results are shown on Table 17.

The findings indicate that there were significant differences between both groups on three items compared to four on the Attitude to Father Cluster. Two of the three were also significant on the Father Cluster. The items demonstrating significant differences

Table 17

Means and Standard Deviations for Individual Variables in Attitude to Mother Cluster by Pregnancy Status

Variable	Pregnant			Nonpregnant			t Value	df	p
	Mean	SD	n	Mean	SD	n			
Good Relation	3.607	1.174	117	3.745	1.169	200	-1.014	315	.3115
Felt Understood	3.307	1.117	117	3.263	1.262	201	.312	316	.7550
Companionship	3.457	1.204	116	3.719	1.129	199	-1.936	313	.0537
Felt Anger	3.342	1.161	117	3.490	1.070	198	-1.149	313	.2513
Good Example	3.744	1.190	117	4.060	1.137	200	-2.350	315	.0194*
Felt Accepted	3.629	1.322	116	4.116	1.184	198	-3.366	312	.0009*
Time to Talk	3.330	1.290	115	3.468	1.353	201	-0.882	314	.3782
Felt Loved	3.872	1.214	117	4.303	1.132	201	-3.192	316	.0016*

* $p \leq .05$.

were Items 5 (Mother Good Example), 6 (Felt Accepted), and 8 (Felt Loved). The mean differences between the groups were .32, .49, and .43 respectively. Overall, the means for mothers were higher than those for fathers on the variables, indicating that, for both groups, the relationship with the mother was more positive than with their father.

Hypothesis 1b

Hypothesis 1b stated: *There is no relationship between father absence/presence and the occurrence or non-occurrence of teenage pregnancy.*

One variable in the questionnaire specifically addressed this question. The chi-

square procedure was performed on the data to examine the relationship between the absence of a father and the occurrence of an early pregnancy. The results of this analysis are shown in Table 18. Both groups were almost equally likely (approximately 64%) to have an absentee father during their formative years. Therefore, there is no significant relationship between father absence or presence and teenage pregnancy for this sample ($p = .906$). The hypothesis is retained.

Hypothesis 2

Hypothesis 2 stated: *There is no significant relationship between intergenerational history of teenage pregnancy and the occurrence or non-occurrence of an early pregnancy.*

In order to address this question, the patterns of pregnancy of grandmothers, mothers, aunts, and sisters of the respondents were examined using chi-square analysis. The results are shown in Table 19. The hypothesis is retained.

Table 18

Chi-Square, Degrees of Freedom, and Probability Values for Father Absence/Presence by Group

Variable	Pregnancy		Status	
	<i>n</i>	(%)	<i>n</i>	(%)
Father Present	42	(36.52)	71	(35.86)
Father Absent	73	(63.48)	127	(64.14)

Note. $\chi^2 = .014$; $df = 1$; $p = .906$.

Table 19

Chi-Square, Degrees of Freedom and Probability Values of Intergenerational Patterns of Early Pregnancy by Pregnancy Status

Variable	Pregnancy Status		χ^2	<i>p</i>	
	Pregnant	Nonpregnant			
	<i>n</i>	(%)	<i>n</i>	(%)	
G/mother	(Yes)	12 (10.17)	17 (08.54)		
	(No)	106 (89.83)	182 (91.46)	.236	.627
Mother	(Yes)	42 (35.59)	71 (35.68)		
	(No)	76 (64.41)	128 (62.32)	.000	.988
Aunt	(Yes)	21 (17.80)	39 (19.60)		
	(No)	97 (82.20)	160 (80.40)	.157	.692
Sister	(Yes)	36 (30.51)	31 (15.58)		
	(No)	82 (69.49)	168 (84.42)	9.907	.002*

Note. *df* = 1 in all cases.

* *p* ≤ .05.

Results indicate that for both the pregnant and nonpregnant samples, the pregnancy patterns of grandmothers, mothers, and aunts were comparable. However, significant differences in the pregnancy patterns of sisters emerged between both groups. The alpha of .002 supports the conclusion that there is a significant intragenerational, but not intergenerational, relationship with early pregnancy.

Hypothesis 3

Hypothesis 3 stated: *There is no significant difference in the occurrence or non-*

occurrence of domestic violence between the families of the pregnant teenagers and their nonpregnant peers.

Hypothesis 3 was tested by the *t*-test procedure. Significant between-group differences were found in two of the six variables in the Domestic Violence Cluster. Table 20 presents the means, standard deviations, and probability values for each variable. The hypothesis is rejected for physical abuse and feeling upset on the basis of these results.

The first two variables tested for the occurrence or non-occurrence of physical and

Table 20

Means, Standard Deviations, and Probability for Variables in the Domestic Violence Cluster by Pregnancy Status

Variable	Pregnancy						<i>t</i> Value	<i>df</i>	<i>p</i>
	Pregnant			Nonpregnant					
	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>	<i>n</i>			
Physical Fights	1.945	1.353	109	1.644	1.039	194	2.011	180.4**	.0459*
Verbal Fights	2.212	1.306	113	2.077	1.211	196	.923	307	.3667
Feel Upset	2.861	1.656	72	3.604	1.465	106	-3.148	176	.0019*
Feel Insecure	2.370	1.439	73	2.160	1.374	106	.983	177	.3268
Feel Left-out	1.712	1.241	73	1.552	.999	105	.914	132.9**	.3624
Responsible	1.562	.999	73	1.726	1.254	106	-0.976	173.1**	.3306

* $p \leq .05$.

** *df* for unequal group variances.

verbal fights between parents/guardians. The last four dealt with how respondents felt they were affected by these fights. On the question of the occurrence of physical fights, means were significantly higher for the pregnant group (1.95 versus 1.64).

Respondents who responded "Never" or 1 to the first two items were excluded from the analysis of the remaining four questions. The mean for the pregnant sample on the variable asking whether they felt upset about the fights was 2.86 compared with the nonpregnant sample's mean of 3.60 indicating that the nonpregnant girls were more affected emotionally when physical or verbal fights occurred in their homes.

Hypothesis 4

Hypothesis 4 stated: *There is no significant relationship between childhood sexual abuse and the occurrence or non-occurrence of teenage pregnancy.*

The chi-square statistic was used for this analysis. Results appear in Table 21

Table 21

Chi-Square, Degrees of Freedom, and Probability for Reported Childhood Sexual Abuse by Pregnancy Status

	Pregnancy Status	
	Pregnant	Nonpregnant
Sexual Abuse	<i>n</i> (%)	<i>n</i> (%)
Sexual Abuse	27 (22.88)	25 (12.63)
No Sexual Abuse	91 (77.12)	173 (87.37)

Note. $\chi^2 = 5.656$; $df = 1$; $p = .017$.

(Chi-square, degrees of freedom, and probability. Twenty-three percent of the pregnant sample experienced childhood sexual abuse as compared with 13% of the nonpregnant sample. The probability score of .017 indicates that the relationship between childhood sexual abuse and teenage pregnancy significantly differentiates between both groups. The null hypothesis is, therefore, rejected.

Hypothesis 5

Hypothesis 5 stated: *There is no significant difference in church attendance and involvement in church-related activities between the pregnant teenagers and their nonpregnant peers.*

This hypothesis was examined by means of the *t*-test procedure. Table 22 presents the means, standard deviations, and probability for each variable in the cluster examining the church attendance and involvement of the sample.

For the variable which examined church attendance, the mean for the pregnant group was 3.28 and for the nonpregnant group, 3.8. The mean difference of .52 proved to be statistically significant (.0001). The mean for the pregnant sample was 2.8 on the question of participation in church-related activities. On the same variable, the mean for the nonpregnant sample was 3.31, and the mean difference of .51 was of statistical significance (.0005). The implication here is that nonpregnant girls reported that they participated in church activities more than did the pregnant group. The third variable examined whether the sample liked going to church. For the pregnant sample, the mean was 3.47 as compared with 3.83 for the other group. The mean difference between the

groups was statistically significant (.0081), and indicated that nonpregnant girls liked going to church more than their counterparts.

It was thought important to examine whether the respondents considered that church was important to them. Significant differences emerged between the means for the pregnant and nonpregnant teenagers (3.74 vs. 4.36, respectively). This was the largest

Table 22

Means, Standard Deviations, and Probability of Each Variable in the Church Attendance Cluster by Group

Variable	Pregnancy Status			Mean	SD	n	t Value	df	p
	Pregnant	Nonpregnant							
Attend	3.282	.839	117	3.802	1.013	197	-4.906	280	.0001*
Participate	2.795	1.193	117	3.308	1.283	198	-3.520	313	.0005*
Like Church	3.474	1.198	116	3.832	1.113	196	-2.665	310	.0081*
Important	3.735	1.342	117	4.358	1.057	193	-4.278	202	.0001*
Spirituality	3.229	1.310	117	3.612	1.254	196	-2.58	312	.0103*

* $p \leq .05$.

mean difference in this cluster at a confidence level of .05. On the final variable, respondents rated the extent to which they thought their spirituality helped them solve their problems. The mean for the pregnant sample was lower than that of the nonpregnant sample and the mean difference of .38 was statistically significant, based on the *t*-test analysis that was performed (.0103). The null hypothesis is, in this case, rejected on all

variables, given the results of the *t*-test.

Hypothesis 6

Hypothesis 6 stated that: *There is no significant difference in self-esteem between the pregnant teenagers and their nonpregnant peers.*

The *t*-test procedure was performed on the data to test this final hypothesis. Means, standard deviations and probability for both groups are presented in Table 23. As shown on the table, the means for both groups are comparable. The *t*-test procedure failed to find any statistical differences between the groups on the question of self-esteem. The null hypothesis is retained.

Table 23

Means and Standard Deviations and Probability for the SEI by Group

Scale	Pregnant			Nonpregnant			<i>p</i>
	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	
Self-Esteem	54.780	20.942	118	58.050	18.155	201	.1436

Note. *t* = 1.466; *df* = 317.

Summary of Findings

The sample for this study came from two Caribbean islands: St. Kitts (Christopher) and Nevis. The sample was divided into two groups, one group comprising females who became pregnant during their teenage years, and a second group of females who did not experience a teenage pregnancy.

The findings indicate that there were significant differences on some of the variables between both groups in their reported attitude to their father and also in their attitude to their mother. In the case of Attitude to Father significant differences occurred on four of the variables, and on three of the variables in the Attitude to Mother cluster. However, no significant differences emerged between the groups on father absence/presence. No significant relationship was found between the occurrence of an early pregnancy and intergenerational patterns of teenage pregnancy, as examined in the grandmothers, mothers and aunts of the sample. A significant intragenerational relationship exists, however, between the history of early pregnancy of the sisters of the sample and becoming pregnant. On the Domestic Violence cluster, significant effects were found on two of the six variables.

Chi-square analysis indicated that there were significant differences between the groups on the question of childhood sexual abuse, that is, the experience of childhood sexual abuse was significantly related to early childbearing. Statistically significant differences also emerged between the groups on all variables on the Church Attendance and Involvement cluster. The nonpregnant sample had a more positive attitude to church and church-related activities on all the variables in this cluster. No statistically significant differences were found between the self-esteem scores of the two groups.

In summary, based on the analyses done on the data for the hypotheses which were tested in this section, the following is a profile of a young woman in St. Kitts-Nevis who is more likely to avoid a teenage pregnancy. Significant differences exist between herself and her counterpart who will become pregnant during the teen years on certain variables.

She has a good relationship with her father. likes being with him. feels accepted by her dad. and feels loved by him. She feels that her mother sets a good example. and feels accepted and loved by her. It is less likely that she has sister who experienced an early pregnancy.

This individual is nurtured in a home where physical fights are kept at a minimum and where her emotional response to such occurrences is more likely to be feeling upset. She is less likely to have experienced childhood sexual abuse. In addition, she attends church regularly, and likes doing so. She participates in church related-activities. finds church important in her life. and reports that her spirituality helps her to solve her problems.

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

This final chapter presents a summary of the study, discussion of the findings, and conclusions and recommendations proposed as a result of the findings. An overview of the problem, the literature review, and the methodology that was utilized in the study are included in the summary. There is also a review of the significant findings.

Summary

Statement of the Problem

This study was undertaken to examine the factors related to the phenomenon of teenage pregnancy in the Federation of St. Kitts and Nevis. These were family, social, and personality/self-esteem factors. The family factors that were examined included mother-daughter and father-daughter relationships, father absence/presence, intergenerational teenage pregnancy, childhood sexual abuse, and domestic violence. Church attendance and involvement was the social factor that was examined in the course of the present study. The self-esteem of the respondents was the personality factor that was of interest in the study.

Overview of the Literature

The literature reviewed covered several areas related to the present study. First of all, there was a general overview of the rates and trends of teenage pregnancy in the United States, other developed countries, and the Caribbean, including St. Kitts and Nevis. The rest of the literature review discussed the phenomenon of teenage pregnancy within a four-part theoretical framework encompassing family, social, personality, and school variables. Although the research questions on school were not included as part of the study, the discussion on school variables has been retained because of its usefulness to those in St. Kitts and Nevis for whom this study will be an important resource.

Prior to the 1960s, an early pregnancy in the United States sometimes resulted in teenage marriage. This practice has lessened over the past few decades. The pregnancy and birthrates in the United States have fluctuated over the years, yet have been the highest among developed nations. Most recently available data indicate that since 1991, the overall rates of birth among American teenagers have declined. These declines are noticeable among White and African American teenagers (U.S. Department of Health & Human Services, 1996b). Birthrates to Caribbean teenagers were comparable to and sometimes surpassed those of American teenagers until the recent declines in the U.S. rates reported since 1991. No recent data are available for the Caribbean area currently, so one cannot be certain whether they, too, have experienced declining birth rates. Even so, one cannot be certain whether the declines to US teenagers are due to abstinence, more effective contraception, increased abortion, or a combination of the above.

In discussing teenage pregnancy in the family context, Watson et al. (1988/1989)

found that the most important deterrent to early pregnancy was a good relationship between parent and child. This view was corroborated by Rawlins's (1984) study of Jamaican teenagers. The effect of absent fathers has been noted in several sources. Keddie's (1992) study of 242 teenage girls in Jamaica found a correlation between absent fathers, low self-esteem, and early pregnancy. The Alan Guttmacher Institute (1993) found that daughters of teenage mothers were more likely to become teenage parents. However, Rawlins (1984) noted that the mothers of both pregnant and nonpregnant teenagers had been teenage mothers themselves. Furthermore, he found that the sisters and friends of pregnant girls were more likely to have had an early pregnancy.

Boyer (1993) studied victimization in general. Abused adolescents were more likely to have been in violent relationships. In addition, over half of her sample had been sexually molested before age 10. Perpetrators in this study were usually an adult family member.

Recent empirical studies on the church/religious faith and teenage pregnancy were sparse. The Valuegenesis study done on Seventh-day Adventist youth (Benson & Donahue, 1990) found that congregational warmth and a caring, thinking church climate were most important to young people. The study also discovered that these young people were less likely than American youth on the whole to become involved in at-risk life-threatening behaviors such as drugs and premarital sex.

From their study of almost 700 adolescent males and females, Orr et al. (1989) concluded that sexually experienced girls had lower self-esteem than virginal girls. Keddie's (1992) study of Jamaican teenagers found that the self-esteem scores for urban

nonpregnant girls were significantly higher than those of their pregnant counterparts. Koniak-Griffen (1989), however, noted no statistically significant differences in self-esteem between pregnant girls and teenage mothers, on the one hand, and control groups, on the other.

Purpose of the Study

The purpose of the study was to explore some of the factors that are related to the problem of teenage pregnancy in St. Kitts-Nevis. Family, social/church, personality/self-esteem, and school variables were the four broad areas under which this study was conducted.

Methodology

Sample

The sample for this study consisted of females between the ages of 12 and 21 residing in the Caribbean islands of St. Kitts and Nevis. They were divided into two groups: (1) those girls who experienced a pregnancy during the teen years, and (2) a comparison group of girls who did not become pregnant during that period. They were accessed through schools, health centers, hospitals, and churches.

Questionnaires were received from 322 respondents out of 400 distributed. Three of those were not usable because of large amounts of missing data. The final sample of 319 was distributed as follows: 227 (71%) came from St. Kitts, and 92 (29%) from Nevis. These were further categorized as follows: 67 (30%) of the St. Kitts sample reported an early pregnancy, while 51 (55%) of the Nevis sample reported having become pregnant

during the course of the teen years.

Instruments

Two instruments were combined in the survey questionnaire used in the study. The first was the Coopersmith Self-Esteem Inventory (1981), School Short Form (SEI), which consisted of 25 items. This instrument measures how one evaluates one's attitude to self in social, academic, family, and personal settings. Instead of using the original "Like Me," "Unlike Me" dichotomies, permission was granted to adjust the responses to an "Agree," "Disagree" format. I developed the other instrument, the "Factors Related to Teenage Pregnancy" questionnaire. It contained four clusters of questions on a 5-point Likert-type scale ranging from 1 "Never" to 5 "Always." These four clusters were: Attitude to Father, Attitude to Mother, Attitude to Domestic Violence, and Attitude to Church. Demographic variables were also included.

Data Analysis

Six hypotheses were generated from the research questions that guided this study, and were tested statistically. The following findings resulted from the analyses that were performed in examining each hypothesis.

Hypothesis 1a

Hypothesis 1a stated: *There is no significant difference in father-daughter or mother-daughter relationships between the teenage mothers and their non-pregnant peers.*

The *t*-test results showed that, of the eight variables in the Attitude to Father Cluster, significant differences were found between the groups on four items. These

individuals felt that they had a good relationship with their father. they liked being with their father. felt that they were accepted by their father. and felt loved by their father. Overall. the nonpregnant group had a more positive attitude towards their father. Statistically significant differences were found between the pregnant and nonpregnant groups on three of the eight items on the Attitude to Mother Cluster. They felt that their mother was a good example. they felt accepted by their mother. and also felt loved by her. Two of the three were also found to have statistically significant differences on the Attitude to Father Cluster. The nonpregnant group generally viewed their relationship with their mother in a more positive light than the other group.

Hypothesis 1b

Hypothesis 1b stated: *There is no relationship between father absence/presence and the occurrence or non-occurrence of teenage pregnancy.*

No significant findings were indicated for this hypothesis. Chi-square analysis showed that there is no relationship between the absence/presence of a father and the occurrence of teenage pregnancy.

Hypothesis 2

Hypothesis 2 stated: *There is no significant relationship between intergenerational history of teenage pregnancy and the occurrence or non-occurrence of teenage pregnancy.*

No significant relationship was found in analyzing the data for this question to justify the conclusion of a significant relationship between intergenerational teenage

pregnancy and early pregnancy. However, the chi-square procedure indicated a statistically significant intragenerational relationship. The pregnant teenagers under study were more likely to have had a sister who was a teenage mother than the nonpregnant teens.

Hypothesis 3

Hypothesis 3 stated: *There is no significant difference in the occurrence or non-occurrence of domestic violence between the families of pregnant teenagers and their nonpregnant peers.*

Analysis of the data using the *t*-test procedure showed that there were significant differences between the groups on two of the six variables in the Domestic Violence Cluster. The pregnant teenagers were more likely to come from homes in which domestic violence occurred. The nonpregnant teenagers tended to feel more upset about incidents of domestic violence than their nonpregnant peers.

Hypothesis 4

Hypothesis 4 stated: *There is no significant relationship between childhood sexual abuse and the occurrence or non-occurrence of teenage pregnancy.*

A significant relationship was found between the experience of childhood sexual abuse and early pregnancy. The chi-square procedure indicated that childhood sexual abuse was reported more frequently among the pregnant teenagers than their nonpregnant peers.

Hypothesis 5

Hypothesis 5 stated: *There is no significant difference in church attendance and involvement in church-related activities between the pregnant teenagers and their nonpregnant peers.*

Significant differences were found between the groups on all five variables in the Attitude to Church Cluster. The *t*-test procedure indicated that on all variables the nonpregnant group reported a more favorable attachment to, and involvement in, church than the pregnant group.

Hypothesis 6

Hypothesis 6 stated: *There is no significant difference in self-esteem between the pregnant teenagers and their nonpregnant peers.*

The SEI was used to measure the self-esteem of both groups. The *t*-test analysis identified no significant difference between the groups on self-esteem.

Discussion

Evaluations of Father-Daughter and Mother-Daughter Relationships: Father Absence/Presence

The first objective of this study was to establish whether differences occurred between the groups in parent-daughter relationships (called Attitude to Father and Attitude to Mother Clusters). The second segment of that objective was to determine whether a relationship existed between father absence/presence and the occurrence or non-occurrence of early pregnancy. To make comparisons easier, the same items were used in rating the respondents' attitude to both parents.

Based on the review of the literature, it became clear that family relationships are very important in preventing early pregnancy. More specifically, the quality of the relationship between parent and child seems to influence this issue. Watson et al. (1988/1989) noted that a good relationship between parent and child was the most important variable that works as a deterrent to early pregnancy. Means for the variables relating to father ranged between 2 and slightly above 3 on the 5-point scale for the pregnant group. The range was between 2.5 and 4 for the nonpregnant group. Except for "took time to talk" the nonpregnant group rated their fathers higher than the other group. Means for mothers were between 3 and 4 on the 5-point scale as determined by the pregnant group, and between 3.5 and 4.5 for the nonpregnant group. Here again, except for the variable "felt understood," the nonpregnant group rated the relationship with their mothers more positively than the other group on all variables. Significant differences were found on four of the variables for fathers and three for the mothers.

This study's findings that mothers were more positively evaluated than fathers is not surprising. Rodriguez and Moore's (1995) study of pregnant and parenting teenagers in Texas also found that their subjects reported a closer relationship with their mother than their father. One question that emerges with respect to the present finding is whether these evaluations are a function of mothers being present in the homes in larger numbers and more involved in their daughters' lives than fathers. The demographic variable about persons responsible for raising daughters, for example, shows that mothers were the primary caregivers of pregnant daughters (43%) and of nonpregnant daughters (30%). Fathers were the primary caregivers in 2% and 3% respectively. It makes sense, then, that

relationships with mothers were more positively reported than with fathers.

With mothers more frequently being the caregivers than fathers, it appears that the quality of the mother-daughter relationship is particularly important in preventing teenage pregnancy. This idea is supported by Voydanoff and Donnelly (1990) who found that the positive quality of the mother-daughter relationship was related with less sexual experience. Furthermore, Voydanoff and Donnelly also found that the extent to which the mother served as a positive role model was negatively related to sexual experience.

Qualitative information about the present sample suggests that there is a down side, however, to the positive evaluations reported for mothers. Health professionals in St. Kitts and Nevis are concerned about the mature roles some young girls are forced to fulfill in bearing responsibility for the health care of their younger siblings while their mothers are busy making a living. Their fear is that this maternal type of responsibility robs young girls of a meaningful parent-child relationship with their mothers, and predisposes them to maternal behaviors leading to pregnancy (B. Morris, June 1996; personal communication). One might conclude that sparing girls the maternal care of younger siblings might be another means of decreasing the rate of teenage pregnancy. According to the source cited above, another concern is that, especially in situations of single-parent homes in an age where materialism is so entrenched in society, mothers who cannot afford to give their daughters what they need, sometimes send them to men to get their needs fulfilled. This, of course, is fertile ground for teenage pregnancy to occur and the complex situation justifies Smith's (1988/1989) concern that the changing role of women and the pressure for economic survival contribute to teenage problems.

On the issue of father absence/presence, the finding in the present study was that there was no significant relationship between teenage pregnancy and father absence/presence. For both groups, fathers were more likely to be absent from the home than to be present. In either case, this was about 64%. This finding seems different from other reported findings. Landy et al. (1983) and Rawlins (1984) found that the proportion of weak or absent fathers was higher among their pregnant group. Voydanoff and Donnelly (1990) and Keddie (1992) also found that the likelihood of an early pregnancy increased among girls without fathers.

There may be several explanations for this difference. One possible explanation is that, even though fathers may be neglectful and absent, many may be economically involved in their daughters' lives. Some dads may also be nocturnal visitors to the homes. Rawlins (1984) talked about women in such visiting arrangements in Jamaica, a phenomenon which is part of the social fabric of Caribbean countries. Another explanation is embedded in the history of the Caribbean islands during the time of slavery and is still experienced today. A response historically to absent fathers has been a strengthening of the extended family system often headed by women to rally together to raise children. It seems apparent that women are still the backbone of families in St. Kitts and Nevis.

Intergenerational Teenage Pregnancy and Early Pregnancy

Hypothesis 2 focused on the relationship between a family history of teenage pregnancy and the occurrence of early pregnancy in the sample. The pregnancy history of grandmothers, mothers, aunts, and sisters was considered. No significant relationship was

established between intergenerational pregnancy and early pregnancy in this sample. However, a significant intragenerational relationship was discovered. The pregnant group was significantly more likely to have had a sister who was also a teenage mother. For both groups, percentages for the pregnant or nonpregnant history of grandmothers, mothers, and aunts were comparable.

This result departs from earlier findings. The Alan Guttmacher Institute (1993) and Caldas (1993) established the existence of intergenerational teenage pregnancy. Voydanoff and Donnelly (1990) also found that the children of adolescent parents are somewhat more likely than the children of older parents to bear children as adolescents. Rawlins's (1984) study established that, in Jamaica, although many of the mothers of pregnant and nonpregnant girls were themselves teenage mothers, the pregnant girls had higher proportions of sisters and friends who were teenage childbearers.

This latter finding seems similar to the present finding among the St. Kitts and Nevis sample. A possible hypothesis to explain this is that St. Kitts and Nevis is a matriarchal society. By this is meant that there is a preponderance of single-parent homes, usually headed by females. As an illustration, Rohner, Kean, and Cournoyer (1991) found that upwards of 50% of the homes in St. Kitts were female-headed. This being the case, the finding is not surprising. What the statistical finding on this question does suggest is that peer pressure and intragenerational influences may be more powerful than values that older generations attempt to pass on. Reaching and influencing young people's sexual attitudes at an early age on the school and community fronts seems to be one of a multidimensional approach that can be adopted to address the problem. This would

require developing or adapting programs that would meet the need of this important segment of the general population.

Domestic Violence and Teenage Pregnancy

Hypothesis 3 proposed that no significant differences existed in the experience of domestic violence between the groups. The six variables in this cluster were divided into two groups. The first two variables sought to establish the respondents' experience with physical and verbal abuse. As the means suggest, the pregnant group was more likely to have experienced both types of abuse in their homes, but a significant difference exists only on physical abuse. The other four variables were answered only by those who experienced either type of abuse. On one of those variables (feeling upset), the nonpregnant group's mean was significantly higher, suggesting that when the nonpregnant girls experienced physical abuse in their homes, they had a more intense emotional reaction.

Very few references to domestic violence as it relates to teenage pregnancy were found in the literature. Hudson and Ineichen (1991) noted that nearly half of the sample of pregnant school girls studied in the late 1980s came from violent backgrounds. The only other reference made to interpersonal violence concerned the experience of violent relationships with a partner in Boyer's (1993) sample. The phenomenon of teenage pregnancy and domestic violence is potentially a significant one and merits further study.

Childhood Sexual Abuse and Teenage Pregnancy

Hypothesis 4 proposed that the experience of childhood sexual abuse was not

related to early pregnancy. The chi-square procedure verified a statistically significant relationship. Whereas just over one fifth of the pregnant teenagers experienced childhood sexual abuse, a little over one tenth of the nonpregnant sample did.

Where sexual abuse was discussed in the literature in relation to childhood sexual abuse, the overall agreement is that this predisposes a child to accidental early pregnancy. Compton, Duncan, and Hruska (1987) looked at causal factors of pregnancy for early, middle, and late adolescents. The one causal factor consistent across these three groups is sexual abuse, in the form of incest and rape. Boyer (1993) reported that over half of her pregnant sample had been sexually molested by an older family member. Hudson and Ineichen (1991) established that some adolescents who become pregnant had been sexually abused by their father or more likely by their stepfather or uncle. The findings of Roosa et al. (1997) only partly support these conclusions. One third of their sample was perpetrated by a boyfriend, about 30% by friends, and one quarter by family members.

Demographic information on the present sample allows for some comparison to the reports in the literature. From the statistical analysis, the most likely individually identified perpetrator was an uncle in almost one fifth of the reported cases, followed by a brother (approximately 14%). Fathers and grandfathers were not as likely to be perpetrators. A physical perusal of the content of the "Other" category indicates that cousins were as equally likely as uncles to sexually victimize young girls. Family friends were also listed under this broad category.

Earlier discussions might explain this finding. If fathers are less likely to be in the home, then the likelihood of molestation by fathers is decreased, although not entirely

impossible. It makes sense that maternal uncles, cousins, and brothers might have more access to little girls than would non-responsible or contributing absent fathers. Such a scenario increases the likelihood of perpetration by these other male family members. The same explanation can be given for brother perpetrators. The largest proportion of perpetrators (about 64%) comprised the "Other" group, which included cousin, boyfriend, and sisters. More precise categorization may have produced much more useful information to tease out other categories lumped together in the "Other" category.

With respect to age at first abuse, Boyer (1993) found that over half of her sample had experienced molestation on an average at age 9.7 years. About one quarter of the sample had experienced this abuse at age 5 or younger. Hudson and Ineichen (1991) found that girls between the ages of 10 to 15 (65%) were the most common victims of sexual abuse. The girls in this sample were somewhat older than those in the Boyer sample. Approximately 33% of Roosa et al.'s sample (1997) had been sexually abused before the age of 13, and more than 60% before age 16. What is not known is how "molestation" and "sexual abuse" were defined in a few of the studies. Although the third most likely age for abuse to take place in the sample for the present study was the 6-7 age group (13.5%), the 12-13 (about 33%) was the most likely, followed by the over-13 age group in one fourth of the cases. This echoes Hudson and Ineichen's findings (1991).

The significance of the relationship between childhood sexual abuse and early pregnancy is disturbing. It raises the question about how parents and other caregivers socialize their boys and girls (we do not want to assume that only girls are sexually violated). The admirable practice of requiring that children respect adults needs to be

modified by teaching them to balance this with discernment. They need to be taught to set their own boundaries. Adults have the responsibility to teach children that they have a right not to be interfered with in an abusive manner. Wilson (1994) charged that by keeping silent about sexual abuse and incest, we give perpetrators too much power. She challenged parents and other adults to believe the children and to "listen and investigate information that children bring to us" (p. 90).

Church Attendance and Involvement and Teenage Pregnancy

Hypothesis 5 stated that there was no significant difference in church attendance and involvement between both groups. Using the *t*-test procedure, significant between-group differences were indicated on all five variables in this cluster. The means for both groups indicate that, for the most part, church attendance and involvement influence their lives. Means for the pregnant group clustered around the "Sometimes" category, whereas for the other group, means clustered around the "Often" category. Despite the positive evaluations of church for both groups, the nonpregnant group was significantly more likely to attend church and to find church activities more satisfying. The differences were most significant on church attendance and the degree of importance the individual thinks that church plays in her life.

This result mirrors previous findings (Miller & Olson, 1988; Rodriguez & Moore, 1995). Both proposed that, from their studies, there is a negative relationship between church attendance and early sexual activity. Miller and Olson also suggested that religiosity probably has more impact on sexual behavior than religious affiliation. Church attendance seems insufficient to curb the occurrence of early pregnancy. If, however,

church attendance fosters a sense of meaningfulness and relevance in the adolescent's life (religiosity), it seems that the likelihood of early pregnancy is decreased. This is an important distinction and relevant to this study in particular.

Of the sample, only 11 indicated no religious affiliation. If only 3% of the sample reported no religious affiliation, then they cannot begin to account for the problem of teenage pregnancy. Neither can simply attending church account for this. Miller and Olson's suggestion of religiosity (1988) appears to be the most plausible explanation. Four of the five variables seem to tap into religiosity. In all cases, the nonpregnant group clearly evaluated their religious experience more favorably than the pregnant group. With no offense intended, the demographic information on religious affiliation offers some help on this issue.

On one extreme of the spectrum of pregnancy, early pregnancy occurred in 28% of the Adventists and 29% of the Evangelicals and Pentecostals. In the midrange were Methodists (34%), and Anglicans (35%). Baptists (40%) and Moravians (42%) were outdistanced by the outlier, Catholics. Two thirds of a small sample of Catholics reported a teenage pregnancy. These figures give some support to the suggestion that religiosity impacts sexual behavior more than religious affiliation. Seventh-day Adventists, Evangelicals/Pentecostals are among denominations that emphasize a personal relationship with Christ and have clear rules about issues of morality. In the case of the Catholics who fall on the other extreme, one needs to also consider the church's views on contraception and abortion as possible influences.

Self-Esteem and Teenage Pregnancy

The sixth and final hypothesis proposed that there was no significant difference in self-esteem scores between the pregnant and nonpregnant groups. The *t*-test procedure failed to establish a significant difference. Similarly, Koniak-Griffen (1989) found no significant difference in self-esteem scores between pregnant and parenting teenagers and their nonpregnant controls. Vernon et al. (1983) had similar results using the Coopersmith Self-Esteem Inventory.

Freeman and Rickels (1993) noted no significant differences in self-esteem among pregnant, parenting, and sexually active but never-pregnant Black adolescents on the SEI and Rosenberg Scale. They found, in addition, that teenage mothers had the lowest self-esteem scores. In Keddie's (1992) study of adolescents in Jamaica, she found that self-esteem scores for the urban, never-pregnant girls were significantly higher than their counterparts. Although the same pattern held for rural girls, the difference was not significant. Taking other findings into consideration, she concluded that low self-esteem and absent fathers are positively related to teenage pregnancy. She also used the 25-item School Short Form of the SEI to measure the self-esteem of her sample.

Some of these findings suggest that a pregnancy for a young Black girl may be a source of esteem, a symbol of the rite of passage to womanhood rather than a source of shame. This might especially be the case if she was not doing well at school and if negative reinforcement is not associated with early pregnancy. To explain these mixed findings, I might simply suggest that a combination of factors better explains the phenomenon than individual factors.

A unidimensional approach to decrease teenage pregnancy will be inadequate. Rather, a multifaceted approach should aim to promote the development of mature, responsible youngsters who understand consequences to their behaviors. Several sectors within the community such as parents, the media, schools, and the church seem the most viable approach to the problem (Michigan Department of Public Health, 1993). Programs would have a multidimensional focus whose central theme is to communicate to the youth that they are valuable. The "carrot on a stick" approach by the Carrera team who put a structure in place to foster educational and other valued goals for young people could serve as a catalyst for programs.

Conclusions

The present study investigated six research questions in the process of establishing what factors might impact teenage pregnancy in St. Kitts-Nevis. The following conclusions were made based on the findings of the study.

Research Question 1a. *Is there a significant difference in father-daughter and mother-daughter relationships between teenage mothers and their nonpregnant peers?*

There was a partially positive answer to this question. Half of the variables on the Attitude to Father Cluster and three of those on the Attitude to Mother Cluster significantly differentiated between the pregnant and nonpregnant groups. Of significance in the father-daughter relationship were that the young girl thinks that she has a good relationship with her father, and she likes being with him. She also feels accepted and loved by her father. The mother-daughter relationship was distinguished by young girls' feeling that their mothers set a good example, and they also feel accepted and loved by her.

Research Question 1b. *Is there a significant relationship between father presence/absence and the occurrence or non-occurrence of teenage pregnancy?* The answer to this question is in the negative. It appears that, for this sample, father absence/presence had no significant effects, although some caution is advised in interpreting this data. For both groups, almost two thirds of the fathers were absent from the home during the formative years. Relatedly, there was no evidence that individuals raising young girls in St. Kitts and Nevis significantly affect the occurrence or non-occurrence of teenage pregnancy. What is not clear from the data is whether these absent fathers were absent but financially supportive or neglectfully absent. This is a question that might be posed in a future study.

Research Question 2. *Is there a significant relationship between intergenerational teenage pregnancy and the occurrence or non-occurrence of teenage pregnancy?* A relationship between intergenerational teenage pregnancy and early pregnancy was not corroborated by this study. However, since one cannot be sure that respondents have an accurate knowledge of the pregnancy history of grandmothers, mothers, aunts and sisters, this might have had an effect on the results. An intragenerational relationship emerged, however, for the sisters of the respondents.

Research Question 3. *Is there a significant difference in the occurrence or non-occurrence of domestic violence between the families of pregnant teenagers and their nonpregnant peers?* The pregnant girls were significantly more likely to have witnessed physical fights among parents/guardians, while the nonpregnant girls were significantly more likely than the pregnant girls to feel upset when these fights occurred in their homes.

The answer to this question is only partially in the affirmative.

Research Question 4. *Is there a significant relationship between childhood sexual abuse and the occurrence or non-occurrence of teenage pregnancy?* There was a significant relationship between the experience of childhood sexual abuse and the occurrence or non-occurrence of early pregnancy. Sixteen percent of the sample experienced childhood sexual abuse and the pregnant girls were significantly more likely to be the victims. This abuse was most likely to be initiated by an uncle or cousin, followed by a brother. A grandfather was least likely to be the abuser, followed by a father. The answer to this question is in the affirmative.

Research Question 5. *Is there a significant difference in church attendance and involvement in church-related activities between the pregnant teenagers and their non-pregnant peers?* Significant differences were found between both groups on all the variables on the Church Attendance and Involvement Cluster. Although the majority of the sample reported that they attended church in their childhood and teens, the nonpregnant girls were significantly more likely to have attended church more regularly, to view church as very important in their lives, to participate in church-related activities, to like church, and to report that their spirituality helped them face their problems. These were given in descending order of significance. The answer to this question is in the affirmative.

Research Question 6. *Is there a difference in self-esteem between the pregnant group and their non-pregnant peers?* When the matter of self-esteem was examined, the scores for both groups of respondents turned out to be comparable. There is therefore a

negative response to this question.

Recommendations

In view of the findings and conclusions of this study, the following recommendations are proposed.

Practice

1. Since the problem of teenage pregnancy appears complex, a concerted multifaceted approach is recommended to determine how better to intervene. With this in mind, a needs assessment should be conducted from the perspectives of the Ministry of Education and the Ministry of Health and Women's Affairs. It would be essential to include input from parents, teenagers, pre-teenagers, teachers, other community leaders, and the church on their views of the severity of the problem of teen pregnancy, what they think needs to be done, and how they might work together as a community to develop programs designed to keep youngsters working on goals.

2. From all these fronts, special efforts need to be made to encourage positive and consistent parent-child interactions. Ways can be devised to determine how the church and various ministries can intervene to provide necessary educational and other support, while encouraging mothers and fathers to be involved in raising their children.

3. With intragenerational influences so strongly suggested in the findings on intergenerational teenage pregnancy, the challenge is to educate the present generations of pre-teenagers and teenagers. At their developmental stage, fitting in with the crowd and bowing to the pressures of the peer culture are important to them. Since this concern is

developmentally appropriate. adults influencing how education is disseminated to the youth of St. Kitts-Nevis might work to make peer influence a positive. socially transforming agent. Younger siblings of adolescents should be purposefully targeted for programs aimed at increasing life skills and reducing teenage pregnancy.

4. Domestic violence should no longer be considered a nuisance. It should be made unacceptable and, in that regard, the government needs to enact laws that would protect females and children who are usually the victims.

5. Since the church has widespread contact with youngsters, one recommendation is that church administrators and officers become actively involved not only in community efforts focused on curbing teenage pregnancy, but also to take a proactive stance in speaking to the problem from their pulpits, and offering programs that would address sexuality and other developmentally appropriate issues that teenagers must face in today's society.

6. The findings on the prevalence of childhood sexual abuse and its relationship to early pregnancy should be disturbing enough to motivate all concerned to actively attack this practice. First of all, parents should teach their children about good and bad touch, and empower them to differentiate between appropriate obedience and inappropriate obedience. They should teach their boys and girls mutual respect between the sexes and to especially encourage their girls to have self-respect and to expect it from others. Concurrently, the silence about incest and sexual abuse needs to be broken, and a vocal social outrage be clearly heard.

7. Given the nature of childhood sexual abuse with brothers, cousins, and uncles

as the main perpetrators, the issue of access to children is raised. It also calls into question the kind of child care available in families where mothers often spend long hours in low-paid employment. The wider community is challenged to increase the availability of quality childcare to these parents. If it means earmarking funds to train workers in childcare facilities, then this should be an important and necessary investment.

8. A case is also made for family communication. While it is important to teach children about appropriate behavior and the inappropriateness of sexual intercourse at an early age, the relationship in the family needs to be such that children feel comfortable talking to their caregivers about any instances of any form of violation. Developing programs within the schools and communities is a proactive way of facilitating this process.

9. Recognizing that many of the parents were themselves teenagers and without much parenting experience, educators should provide programs to help parents understand the lasting negative effects of some behaviors perpetrated against their children and to teach them of ways to intervene.

10. In addition, laws need to be revised or set in place to address such problems as sexual abuse and incest. Those entrusted with enforcing these laws should be sensitive to the trauma that children can experience when made to face their perpetrators in courts of law.

11. One final recommendation concerns the issue of self-esteem. The various forms of the media are sometimes sources of pressure for youngsters which generate an emphasis on material things. The message that true self-esteem is not a question of the

quantity of one's possessions. must be effectively communicated to young people. This might help to stem the tendency of young girls looking to men for the material things with which their parents (mothers) cannot supply them. With education, mothers would be less likely to encourage or tolerate this kind of behavior.

Future Research

1. In a future study, only girls older than 19 should be sampled. This should make the findings more convincing. In this present study, it is not certain, for example, that some of the participants will not become pregnant. Sampling individuals who have already chartered the course of the teen years would make significant findings more sturdy. Alternatively, the results of a longitudinal, prospective study could be even more convincing.

2. Since some of the findings depart from current studies, a replication of this study is encouraged in other islands of the Caribbean including Antigua and Barbuda, St. Vincent, Grenada, St. Lucia, Barbados, and Trinidad and Tobago. Findings on father absence/presence, for example, will go a long way in establishing whether this is a phenomenon known only in parts of the Caribbean. Such a study will indicate to what extent these findings are generalizable.

3. One might include items asking about current employment history and level of satisfaction in what they are doing. This might help understand how these young people are relating to life globally.

4. More details about fathers might be elicited by asking for information such as whether or not they are deceased, whether they are absent from the homes because they are

overseas, or simply live in a different home. It would also be important to collect information on whether these fathers are neglectful of their responsibilities to their children or are supportive in economic and other ways.

5. Hindsight reveals that on the issue of child abuse, increasing the discrete categories might have enhanced the study. In this case, by going back through the questionnaires, cousins who were included in the "Other" category were as frequently sexually abusive of young girls as uncles. If I were to repeat this study, my categories would be: Father, Stepfather, Grandfather, Uncle, Brother, Cousin, Family Friend, Boyfriend, Other (Please Specify).

6. To make such a study balanced, a survey of young boys is also encouraged. Issues of sexual abuse or incest of young boys might be discovered. Also, one might learn a lot more about the socialization of boys and girls.

7. One dimension not addressed in this study is how teenage pregnancy interfaces with socioeconomic status. This is another area that might be incorporated in future research.

8. It might also be of interest to figure out ways of finding more accurate information about the intergenerational teenage pregnancy patterns of older generations to test whether the findings of the present study are corroborated.

9. A final recommendation is that any further related study incorporate a qualitative component. By interviewing a cross-section of respondents, officials, and parents, a researcher might glean a lot of useful information that might not lend itself to quantification.

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APPENDIX A
INSTRUMENT

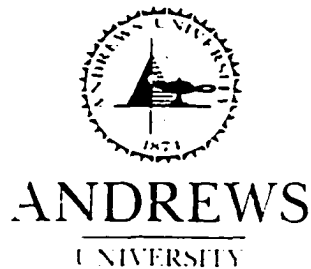
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**Appendix A
125-128**

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APPENDIX B
CORRESPONDENCE



550 Maplewood Ct., # B-66,
Berrien Springs, MI 49103.

March 20, 1996.

Mr. Osmond Petty,
A'g Chief Education Officer,
Ministry of Education,
Church Street, Basseterre, St. Kitts.

Dear Mr. Petty:

Greetings from Berrien Springs, Michigan. I am Ermine Leader (formerly Browne, niece of Mrs. Edgings). Presently I am pursuing graduate studies at Andrews University, MI. Congratulations on your appointment as Acting Chief Education Officer. I had been in regular contact with your predecessor early last year. This was specific to getting permission to conduct research with respect to my dissertation topic: Factors related to teenage pregnancy in St. Kitts-Nevis.

I did receive permission from Mr. White to do the research which will involve the schools. I thought it important that I let you know what had transpired and to request permission for Mr. Joseph J. Halliday to contact teachers and Guidance Counsellors in the schools to collect some data from those sources. I am looking at two groups of females within the 12 to 21 age group, one group which became pregnant during the teen years, and the other group who did not. This comparative study is a follow-up to the one I did in 1992-93 on The relationship between teenage pregnancy and educational achievement in St. Kitts-Nevis.

I wish to extend expressions of gratefulness for your efforts to help me do a meaningful study. I can be reached at 616-471-6764 (H), or at Andrews University at 616-471-3113. Fax # 616-471-6374 if there are any questions. Thanks for helping me to get the necessary help to get this study done with despatch.

Sincerely,

Ermine T. (Browne) Leader

Berrien Springs, Michigan 49104 (616) 471-7771



ST. CHRISTOPHER AND NEVIS

Ministry of Education, Youth
& Community Affairs,
P. O. Box 333
St. Kitts, W.I.

27th June 1995

Mrs Ermine Leader
Andrews University
Education and Counseling Psychology Department
550 Maplewood Court
Apt. B-70
Berrien Springs
MI, 49101

Dear Mrs. Leader,

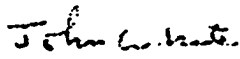
It is with great interest that we learn of the research that you are planning to carry out. "Factors relating to Teenage Pregnancy in St. Kitts-Nevis" as a topic, will be important to the Education Department.

The conclusions drawn can be used to determine concepts that can be included in the curriculum in order to eliminate the concern of teenage pregnancy.

The Department encourages the research, and will offer any possible support for the venture.

Wishing you every success.

Yours sincerely,


John White
Chief Education Officer



ANDREWS
UNIVERSITY

July 25, 1995

Ermine T. Leader
550 Maplewood Court B-66
Bremen Springs MI 49103

Dear Ermine:

On behalf of the Human Subjects Review Board (HSRB) I want to advise you that your proposal, "Factors Related to Teenage Pregnancy in St. Kitts-Nevis," has been reviewed under the Exempt Review Category. You have been given clearance to proceed with your research plans.

All changes made to the study design and/or consent form after initiation of the project require prior approval from the HSRB before such changes are implemented. Feel free to contact our office if you have any questions. The duration of the present approval is for one year. If your research is going to take more than one year, you must apply for an extension of your approval in order to be authorized to continue with this project.

Some proposals and research designs may be of such a nature that participation in the project may involve certain risks to human subjects. If your project is one of this nature and in the implementation of your project an incidence occurs which results in a research-related adverse reaction and/or physical injury, such an occurrence must be reported immediately in writing to the Human Subjects Review Board. Any project-related physical injury must also be reported immediately to the University physician, Dr. Loren Hamel, by calling (616) 473-2222.

We wish you success as you implement the research project as outlined in the approved protocol.

Sincerely,

James R. Fisher, Director
Office of Scholarly Research

c: Lenore Brantley



ANDREWS
UNIVERSITY

550 Maplewood Ct., # B-66,
Berrien Springs, MI 49103.

January 16, 1995.

Mr. John White,
A'g Chief Education Officer,
Ministry of Education,
Church Street, Basseterre, St. Kitts.

Dear Mr. White:

May I extend best wishes for 1995 to you and family, and wish you the very best as you settle into your new position of Chief education Officer for the Federation. I am sure your many years of teaching have prepared you with much that you can in turn contribute to the cause of education in our country.

By way of re-introduction, I am Ermine **Browne**-Leader, and am presently pursuing a Ph.D. in Counseling Psychology at Andrews University in Michigan. For my Master's, I elected to do a theses entitled: **The relationship between teenage pregnancy and educational achievement and the implications for general quality of life in St. Kitts-Nevis.** I shared a copy of that study with your predecessor, Mr. J. J. Halliday. The major findings were that there are significant differences in terms of educational achievement, type of employment, income, and number of children born 4 to 5 years after the first birth between pregnant teenagers who dropped out of high school and a group of their peers who completed school.

Since I believe that efforts like this should contribute to society, for my dissertation I wish to pursue this topic, this time extending the sample beyond the high schools to include the churches, health centres, and the Youth and Community Affairs Department. Using a comparison group again in this study, I propose to look at factors related to teenage pregnancy such as social, family and other variables.

The aim of this letter is to request your kind permission to carry out this study under the auspices of the Education Department, and to solicit your support at the time of data collection. My aim is to travel to St. Kitts-Nevis between August and September this year. You will hear more as time progresses.

Sincerely,

Ermine T. (Browne) Leader



ANDREWS
UNIVERSITY

550 Maplewood Ct., # B-66,
Berrien Springs, MI 49103.

February 28, 1996.

Dear Youth:

I am Ermine Browne-Leader, presently a student at Andrews University in the United States. As a follow-up to an earlier study, I have decided to concentrate on the topic: **Factors related to teenage pregnancy in St. Kitts-Nevis.**

Two groups of young women are being considered for this study. The first group comprises females between the teen years and 21 who became pregnant during the teen years. The second group comprises females of the same age range who did not become pregnant during their teen years. Since you fall in one of these two groups, you are in a very good position to help us better understand some of the issues that affect teenage pregnancy in our country.

No known research of this nature has been conducted in St. Kitts-Nevis, which makes this a potentially very important study. There is no financial benefit to you for participating in this study. However, as a result of the study, it is expected that there would be a better understanding of social, family and other factors that relate to teenage pregnancy. Such results should prove useful as a guide for how future programs for young women in St. Kitts-Nevis could address their needs more effectively. The findings could be a basis for requesting funding for such programs.

It would help my study a great deal if you would be willing to participate by taking a few minutes of your time to fill out this questionnaire. Since I want to ensure **anonymity** (that I do not know how you are), please do not write your name on the questionnaire. Churches, schools, health centres, and the Youth and Community Affairs Department are helping to gather the information for the study.

Be assured that I do not know who you are. No names will be sent to me, so feel free to be honest with your information. No number codes are being used to identify participants. Some of the questions are personal, but it is your honest responses to such questions that will help the study to be of even greater importance. If at any point you decide not to complete the questionnaire, you are free to do so without any penalty to you. However, be assured that it is all the information put together from all the **completed questionnaires that will make the study useful.**

By filling out and returning the questionnaire in the accompanying envelope (which you will seal), you are agreeing to be a part of this study. You are also acknowledging that you have been given opportunity to ask questions and that those questions have been adequately answered. If you have any questions, Mr. Joseph Halliday at Bird Rock can be contacted. You are also free to call me collect in Michigan at 616-471-6764.

Kindly accept expressions of appreciation for your willing participation.

Sincerely,

Ermine Browne-Leader



Ermine T. Leader
Andrews University
Room 160 Bell Hall
Bremen Springs, Michigan 49164

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consequences. The user should know the procedures necessary to facilitate effectiveness and to reduce bias in test use. Although the test developer and publisher should provide information on the strengths and weaknesses of the test, the ultimate responsibility for appropriate test use lies with the test user. The user should become knowledgeable about the test and its appropriate use and also communicate this information, as appropriate, to others.

6.1 Test users should evaluate the available written documentation on the validity and reliability of tests for the specific use intended.

6.3 When a test is to be used for a purpose for which it has not been validated, or for which there is no supported claim for validity, the user is responsible for providing evidence of validity.


6.5 Test users should be alert to probable unintended consequences of test use and should attempt to avoid actions that have unintended negative consequences."

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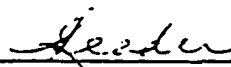
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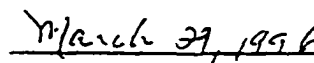


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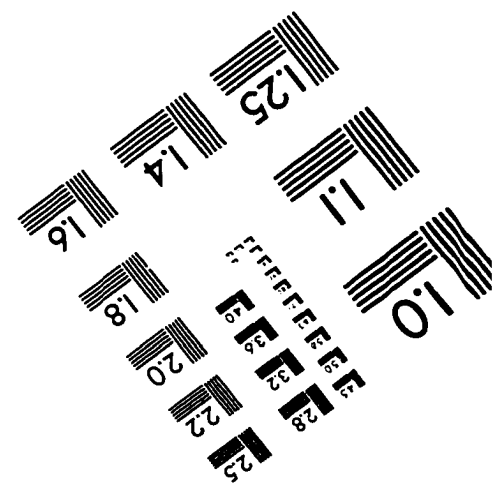
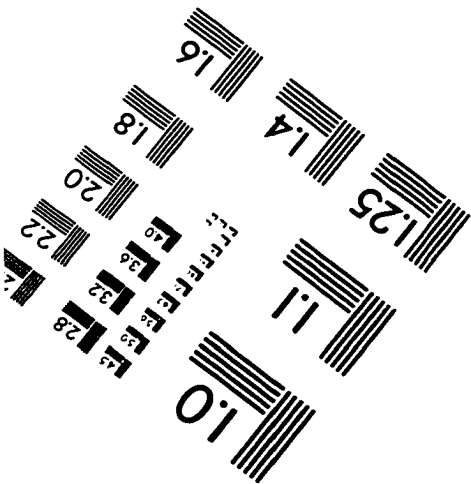
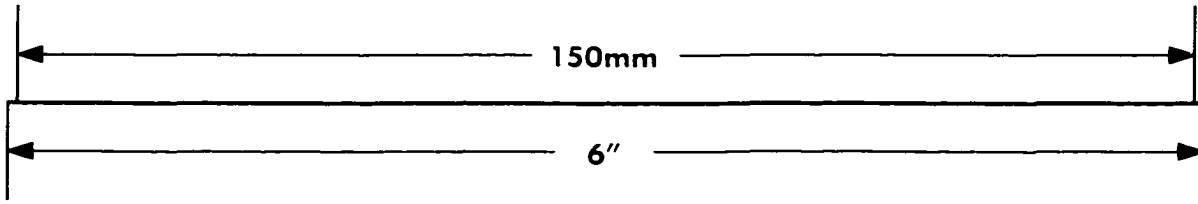
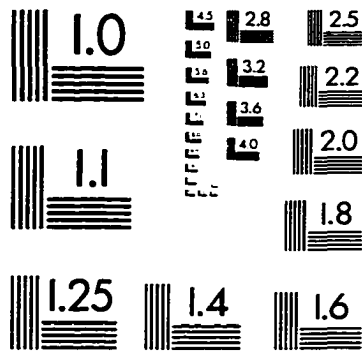
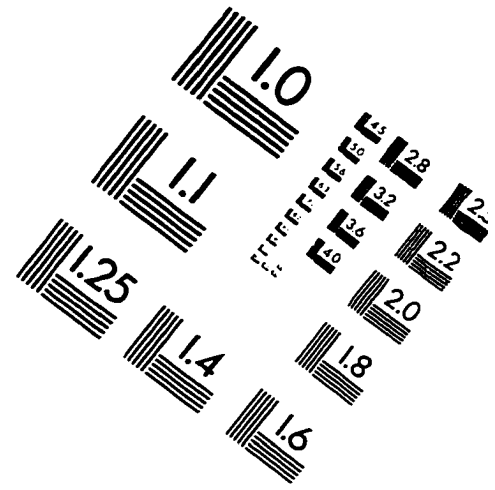
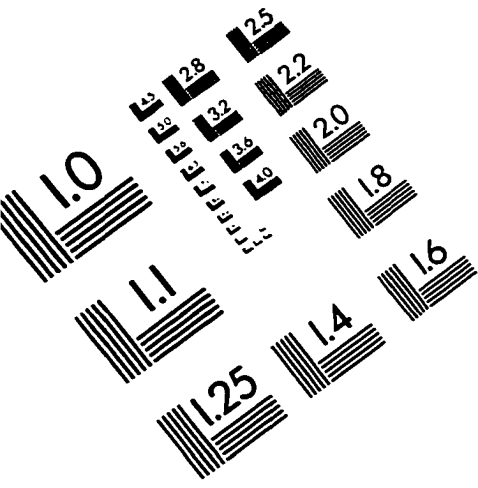
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