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AN EVALUATION OF EDUCATION PROGRAMS FOR PREGNANT TEENS
IN THREE SELECTED URBAN VIRGINIA COMMUNITIES

by
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ABSTRACT

As adolescent pregnancy becomes more prevalent and funds for social programs diminish, the need to define the parameters of successful educational programs for pregnant teens becomes clear. This dissertation evaluated four programs to determine the effect of centralization of instruction and the length of time a student spent in her program on self-concept, vocational awareness, academic achievement, attendance and return to regularly assigned school.

The researcher administered the Piers-Harris Self-Concept Scale and the Holland Self-Directed Search to 125 female students. Data were also gathered from school records on the remaining variables. Qualitative data were gathered to supplement quantitative data. Interviews were conducted with program personnel and administrators, and with randomly selected students and their families.

Based on the quantitative data, a homogeneous group of teenagers emerged. Student-mothers had mothers who themselves had children young and without the ongoing support of their male partners. Many students had older family members in the same situation.

The qualitative data permitted a weak conclusion that the centralized program linked to other community agencies offered a superior program of continuing education to pregnant teens. The program occupied a single-story facility unshared with any unrelated activity. Federal breakfast and lunch programs were available. Business and homemaking classes were held at the school rather than at a distant site. Infant day care was available at the school.

A serendipitous finding concerned the correlation between one factor score and the total self-concept. For this sample of pregnant teens, a high positive correlation ($r = .8068$) was found between the 12-item anxiety factor and the total self-concept. Further research is in progress to determine if this correlation holds true for both sexes and all ages. If so, school personnel would have a brief, easily-administered indicator of possible self-concept deficits.

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As I have been writing about families, I have recognized how grateful I am to my own family. My husband has been a continuously supportive partner. Even my young sons have encouraged me to excel.

But in the end I must dedicate this project to my parents--to my late father and to my mother--whose support has continued from my infancy to adulthood.

CHAPTER I

INTRODUCTION

This dissertation evaluates a continuing education program for pregnant teenagers in Norfolk, Virginia. The Coronado School is a component of the Norfolk Adolescent Pregnancy Prevention and Services Project (NAPPS). In 1981, Coronado School replaced a decentralized program of continuing education (CEP) offered by Norfolk Public Schools to its pregnant adolescents. With this change, documentation of any differences in student performance became a critical need due to federal funding. Thus, the research reported in this dissertation was devised.

As the political climate changes, funding for social programs such as those considered in this study is modified. As funding becomes more limited, programs must maximize their resources. Recommendations resulting from this research are offered to improve the effectiveness of the program offered to the pregnant teens of Norfolk, Virginia.

The Problem of Adolescent Pregnancy

Adolescent pregnancy is problematic both because of its complexity and its pervasiveness. It has been called the "major problem in American fertility today" (Zelnic,

Kantner and Ford, 1981). The rate of out-of-wedlock births to teenage females has risen 75% since 1961 (HEW, 1977). Adolescent pregnancy is pervasive in the sense that its etiology and its results are cultural as well as personal. It is not only intrapsychic motivation which impels a young woman to allow herself to turn to early motherhood as a determining condition for herself and her offspring. The society in which she lives offers her all sorts of models--both negative and positive--for doing so.

Society denies definitive roles to adolescents (Friedenberg, 1959; Goodman, 1956) leaving them in a limbo. This confusion does not permit them to realize their needs for love and feelings of self-worth which are the psychological correlates of maturity (Glasser, 1965). Such needs loom large in the black urban ghettos because of depressed economic conditions (Clark, 1965; Liebow, 1967). This population is critical when one considers adolescent pregnancy and parenthood. Eleanor Holmes Norton, a senior fellow at the Urban Institute, stated that the problem of "babies making babies" is the "single most important problem confronting the black community today" (William Raspberry, Editorial, November 2, 1981, Norfolk Virginian-Pilot).

Once mothering, the teen bears the responsibility for socializing her child. Often she bears the responsibility alone. Frequently she shares the responsibility with her extended family. In many cases the wider context of her society shares the responsibility also by providing welfare assistance and social programs.

On May 26, 1982, Evelyn Hailey, a Delegate to the Virginia State House of Representatives, spoke at Coronado School in Norfolk, Virginia. She stated that one dollar spent for care of the high-risk adolescent mother for health and nutrition saves fifteen dollars in later child care and mental retardation funding. The potential cost of this problem to society is obvious. Families whose female heads are under 25 are seven times as likely to be poor as others. The median annual income of such families is \$3,953--below the official poverty level (Guttmacher, 1981). Teens are three to five times more likely than older women to depend on government to pay for their deliveries (Guttmacher, 1981).

The complexity of the adolescent pregnancy problem is rooted in the interaction of intrapersonal factors with interpersonal and cultural factors in varying ways for various individuals. No single explanation of etiology nor of consequences is applicable.

Adolescence is a term often used synonymously with teen age. These phenomena do not necessarily occur simultaneously, however. A teenager is an individual whose chronological age ranges from 13 through 19 years. Adolescence is a developmental period that begins with puberty and ends with adulthood (Lefrancois, 1981).

The psychological task of adolescence is to leave childhood behind. Integration of physiological and social changes into a coherent individual identity is the desired

outcome of this life stage (Erikson, 1959). Gould (1977) defined the four tasks of adolescents as:

- Establishment of sexual resolution and direction;
- Emancipation from parents;
- Choice of and preparation for career goals;
- Integration of personality.

The increasing independence which is a developmental necessity of adolescence means decreased adult supervision.

Culturally, this period is made more difficult by the lengthy preparation for adulthood common in our culture. Apprenticeships, job training, college and advanced academic preparation delay full participation in society for many adolescents well beyond the expected endpoint of adolescence (Klerman, 1975).

The terms adolescent pregnancy and teenage pregnancy are used synonymously in the literature. For the purpose of this dissertation that equivalence will be maintained. The rationale for this definition is that the term adolescent pregnancy recognizes the psychosocial processes of the teenager while incorporating chronological limits which make the term operational.

According to the Guttmacher Institute, the number of sexually active unmarried women aged 15-19 who lived in metropolitan areas rose by two-thirds during the 1970's. In that decade, proportionately more blacks were sexually active than whites (Guttmacher, 1981, p. 9). But the proportions were changing for both blacks and whites and the gap between them was closing. The increase in sexual

activity among whites aged 15-17 was double (The Guttmacher Institute, 1981).

Adolescent sexual activity does not axiomatically lead to pregnancy. Nevertheless the statistics are grim. Teenagers represent 18 percent of sexually active women capable of bearing children. They account for 46 percent of all out-of-wedlock births and 31 percent of abortions. Thirty-nine percent of the two million girls turning 14 in 1981 were expected to have at least one pregnancy while they were still teenagers (The Guttmacher Institute, 1981). Most teens are sexually active for nine months or more before they seek help with contraception. The Guttmacher Institute (1981) reported that half of the premarital pregnancies among teenagers occur within the first six months, more than one-fifth within the first month after initiation of sexual activity.

Overall rates of teenage child-bearing fell from 97.3 births per 1,000 women aged 15-19 in 1957 to 58.7 births per 1,000 women aged 15-19 in 1974. The decline in the fertility rate among older women, however, meant that teenagers accounted for a larger percentage of U.S. births--19 percent of all births (Goldstein and Wallace, 1978). One source (Foster and Miller, 1980) calculated that ten percent of American teenagers become pregnant yearly. Moore and Burt (1982) stated that in 1979 16 percent of all births and 29 percent of first births were to teenage mothers. Idea Forum (1979) estimated that 20 percent of all children born in the United States are born to single teenage women. The Gutt-

macher Institute (1981) reported that of teenagers who carried their babies to term in 1978, 69 percent were unmarried. About 1.3 million children are now living with 1.1 million teenage mothers. More than half of these mothers are unmarried.

Furstenberg and Crawford (1978) noted the effect of early child-bearing on the educational, economic and marital well-being of young mothers. Pregnancy is the greatest cause of school drop-out among teenage girls (Johnson, 1974). Educational disruption limits vocational opportunities (Furstenberg and Crawford, 1978). Even after their teen years, adolescent parents have more children than their classmates. By age 29, teenage parents have more children than their classmates with similar family backgrounds and academic abilities (Card and Wise, 1981).

Moore and Burt (1982) also found that teenage mothers have larger families, less work experience and less schooling than women who have children at a later age. Teenage mothers have lower hourly wages and less annual income. They are nearly twice as likely to live in households receiving Aid to Families with Dependent Children (AFDC).

The negative consequences of early motherhood also extend to the offspring. Infants of mothers in their teens have twice as high a risk of death as infants of mothers in their twenties (Hutchins, Kendall and Rubino, 1979). And the younger the mother the greater the risk (HEW, 1977). The risk of perinatal death and prematurity is also much

greater in second and subsequent pregnancies (Klerman, 1975).

The risks are not limited to infants, however. A longitudinal study co-sponsored by the National Association of Elementary School Principals and the Institute for Development of Educational Activities found that children from one-parent homes have more trouble in school than children from intact families. Single-parent families were also found to be associated with higher rates of pregnancy among teenagers (Hogan and Kitagawa, 1982). The cycle thus becomes self-perpetuating.

The National Problem of Adolescent Pregnancy

The most recent figures available to date for live births by race and age in the United States are shown in Table 1. Absolute numbers are accompanied by percentage figures (in parentheses) in each category. The absolute number of births to teenage mothers increased from 560,171 in 1979 to 562,330 in 1980. Teenage mothers accounted for approximately 16 percent of the live births to mothers regardless of age in the United States in these years.

For mothers under 15 years of age the absolute number of births declined from 10,699 in 1979 to 10,169 in 1980. The distribution by race remained the same. Fifty-nine percent of births to mothers under 15 in 1979 and 1980 were to non-white mothers, 41 percent to whites. When viewed in relation to total teenage births and births to mothers of all ages, there is a considerable disparity. Twenty percent

of births to women of all ages were to non-white mothers in 1979 and 1980. Approximately thirty percent of births to teenagers in those years were to non-whites, an increase of 50 percent. Even this figure is almost doubled in the under 15 category as 59 percent of births to mothers under 15 were to non-whites in those years. The percentage of births to mothers 15-19 years old in 1979 and 1980 were comparable to the total teenage figures. Thirty percent of births to mothers 15-19 years old were to non-whites, 70 percent to whites.

TABLE 1

LIVE BIRTHS IN THE UNITED STATES

	Total Teenage	Under 15	15-19	Total All Age
1979				
TOTAL	560,171	10,699	549,472	3,494,398
NW	171,962 (31)	6,297 (59)	165,665 (30)	685,978 (20)
W	388,209 (69)	4,402 (41)	383,807 (70)	2,808,420 (80)
1980				
TOTAL	562,330	10,169	552,161	3,612,258
NW	170,101 (30)	5,998 (59)	164,103 (30)	713,526 (20)
W	392,229 (70)	4,171 (41)	388,058 (70)	2,898,732 (80)

SOURCE: Eastern Virginia Health Systems Agency, 1983.

The following sections of this chapter delineate the problem more specifically as it presents itself nationally and in the state of Virginia. All figures provided are furnished by the Eastern Virginia Health Systems Agency

(EVHSA). These figures are the most recent currently available. Absolute numbers are accompanied by percentage figures (in parentheses) within each category.

The National Response

The national response to the problem of adolescent pregnancy has resulted in the creation of the Office of Adolescent Pregnancy Prevention Programs (OAPP). The name of this office makes its mission clear. OAPP operates under the jurisdiction of the Assistant Secretary of Health. OAPP was designed to coordinate all aspects of the Comprehensive Adolescent Pregnancy Initiative. OAPP administers Titles VI, VII and VIII of the Health Services and Centers Amendments of 1978, PL95-626. The objectives of OAPP include:

- Prevention of unwanted initial and repeat pregnancies and comprehensive care of pregnant adolescents, adolescent parents and the infants;
- Encouragement of expanded and comprehensive services for adolescents with risk of initial and repeat pregnancies and in need of pregnancy-related care;
- Building to the maximum possible extent upon existing resources and institutions at the federal, state, and local levels.

As school age persons, pregnant teens have come to the attention of school authorities. No longer is the pregnant teen excluded from school as she once was. In fact, the very opposite trend has emerged. School authorities have designed numerous programs of various types for these stu-

dents. Of 125 cities with populations of 100,000 or more surveyed by Zelnik and Kantner (1981a), 107 reported that they had some type of program for pregnant teens.

Programs for pregnant teens are not only school related. There is wide recognition of the health risks to mother and infant. Hospital-based programs offer special teen clinics as well as educational programs and counseling. Goldstein and Wallace (1978) concluded that progress in service provision to pregnant teens and their babies had been made since 1970. Social and health service needs remained, however, including health education for the mother and day care and health services for the infant.

The Virginia Problem

The most recent figures available to date for live births by race in Virginia are shown in Table 2.

Forty-one percent of all births to teenage mothers in 1979 and 40 percent in 1980 through 1982 were to nonwhites. This is considerably higher than the percentage of births to nonwhites for all age groups across the state--26 percent in 1979-1981, 25 percent in 1982. Nonwhite teenagers are accounting for approximately sixty percent more births than nonwhites of all ages.

In the under fifteen category, the disparity is even greater. Sixty-six percent of births to mothers under 15 in 1979 were to nonwhites, 67 percent in 1980 and 1982, and 69 in 1981.

TABLE 2

LIVE BIRTHS IN VIRGINIA

	Total Teenage	Under 15	15-19	Total All Age
1979				
TOTAL	12,226	244	11,982	76,899
NW	4,995 (41)	160 (66)	4,835 (40)	20,163 (26)
W	7,231 (59)	84 (34)	7,147 (60)	56,736 (74)
1980				
TOTAL	12,181	231	11,950	78,423
NW	4,872 (40)	154 (67)	4,718 (40)	20,376 (26)
W	7,309 (60)	77 (33)	7,232 (60)	58,047 (74)
1981				
TOTAL	11,548	242	11,306	79,278
NW	4,580 (40)	167 (69)	4,413 (39)	20,458 (26)
W	6,968 (60)	75 (31)	6,893 (61)	58,829 (74)
1982				
TOTAL	11,231	251	10,981	81,098
NW	4,485 (40)	167 (67)	4,318 (39)	20,629 (25)
W	6,746 (60)	83 (33)	6,663 (61)	60,469 (75)

SOURCE: Eastern Virginia Health Systems Agency, 1983.

As shown by the figures for this four year period, total births to teenage mothers in Virginia have continued to decline from 12,226 in 1979 to 11,231 in 1982. There has only been a slight decline in the percentage of all births statewide to teenagers. In 1979 and 1980, births to teenage mothers were 16 percent of all births statewide. In 1981,

births to teenage mothers accounted for 15 percent of births to mothers of all ages in Virginia. In 1982, births to teenage mothers accounted for 17 percent of births in Virginia.

From 1979 to 1982, there was an increase in the number of births to mothers under 15. Eleven more teens under 15 gave birth in 1981 than in 1980, and an additional eight in 1982. In the 15-19 year old category births declined.

For this four year period, the breakdown by race is surprisingly consistent with one exception. In the under 15 category, the percentages of births to nonwhites rose from 66 percent in 1979 to 69 percent in 1981. The rate declined to 67 percent in 1982.

The number of births to 15 to 19 year olds has declined steadily from 11,982 in 1979 to 10,981 in 1982. The distribution of births by race during this period was relatively stable. In 1979 and 1980 nonwhites accounted for 40 percent of births to women 15-19 years old. In 1981 and 1982 nonwhites accounted for 39 percent of such births.

Births to women of all ages in Virginia rose steadily in this four year period - from 76,899 in 1979 to 81,098 in 1982. The percentage of births by race in this period was relatively stable for nonwhites at 26 percent in 1979 through 1981 and 25 percent in 1982.

In the state capital, Richmond, the number of live births to teenage mothers has declined slightly. Table 3 depicts the numbers of teenage live births by race and the

number of births by race for all ages for 1979 through 1982, the most recent years available.

TABLE 3

LIVE BIRTHS IN RICHMOND, VIRGINIA

	Total Teenage	Under 15	15-19	Total All Age
1979				
TOTAL	731	20	711	3,467
NW	592 (81)	18 (90)	574 (81)	2,231 (64)
W	139 (19)	2 (10)	137 (19)	1,236 (36)
1980				
TOTAL	702	18	684	3,432
NW	573 (82)	16 (89)	557 (81)	2,168 (63)
W	129 (18)	2 (11)	127 (19)	1,264 (37)
1981				
TOTAL	649	27	622	3,414
NW	534 (82)	27 (100)	507 (82)	2,238 (66)
W	115 (18)	0 (0)	115 (18)	1,176 (34)
1982				
TOTAL	643	32	611	3,467
NW	536 (83)	29 (91)	507 (83)	2,273 (66)
W	107 (17)	3 (9)	104 (17)	1,194 (34)

SOURCE: Eastern Virginia Health Systems Agency, 1983.

In Richmond, as across the state, there was a slight decline in the absolute number of births to teenage mothers

from 731 in 1979 to 643 in 1982. The percentage of these births within the city total for these years also declined slightly--21 percent in 1979 to 19 percent in 1982.

The comparison of teenage births with the births for women of all ages reveals a significant disparity. Over half of the births to women of all ages in Richmond were to nonwhite mothers--64 percent in 1979, 63 percent in 1980, and 66 percent in 1981 and 1982. But to teenage mothers, over three-quarters of the births in those years were to nonwhite mothers--81 percent in 1979 and 82 percent in 1980 and 1981 and 83 percent in 1982. Nonwhite teenagers accounted for approximately one-quarter more live births than nonwhite women of all ages in Richmond. Further, for teenage mothers under 15, there was an increase of 12 births from 1979 to 1982, a 60 percent increase. No white teenager under 15 is reported to have given birth in 1981, only three in 1982.

Births to teenage mothers aged 15 to 19 years have declined over the period 1979 through 1982. Seven hundred and eleven births were to mothers aged 15 to 19 in 1979, only 611 in 1982. The percentage of such births to nonwhites during this period rose slightly from 81 percent in 1979 to 83 percent in 1982.

The absolute number of births to women of all ages fluctuated slightly from 1979 to 1982 beginning and ending with 3,467 births. Over the four years, however, the percentage of births to nonwhites rose from 64 in 1979 to 66 in 1982.

In Portsmouth, Virginia, the disparities were similar. Table 4 shows the number and percentages by category for births by race for 1979 through 1982.

TABLE 4

LIVE BIRTHS IN PORTSMOUTH, VIRGINIA				
	Total Teenage	Under 15	15-19	Total All Age
1979				
TOTAL	442	16	426	2,021
NW	327 (74)	16 (100)	311 (73)	1,112 (55)
W	115 (26)	0 (0)	115 (27)	909 (45)
1980				
TOTAL	420	11	409	1,885
NW	297 (71)	9 (82)	288 (70)	1,031 (55)
W	123 (29)	2 (18)	121 (30)	854 (45)
1981				
TOTAL	423	10	413	1,957
NW	291 (69)	9 (90)	282 (68)	1,025 (52)
W	132 (31)	1 (10)	131 (32)	932 (48)
1982				
TOTAL	381	10	371	2,004
NW	267 (70)	8 (80)	259 (70)	1,076 (46)
W	114 (30)	2 (20)	112 (30)	930 (54)

SOURCE: Eastern Virginia Health Systems Agency, 1983.

From 1979 to 1982 there was a decline in the total number of teenage births in Portsmouth. In 1981, there was a slight increase. The percentage of births in Portsmouth

to teenagers remained constant from 1979 to 1981 at 22 percent of the total of all births regardless of race. In 1982 births to teenagers were 19 percent of the city total. As across the state and in the capital, the percentage of births to nonwhites in every teenage category was greatly higher than the percentage of births to nonwhites over all ages in the City of Portsmouth.

In the under 15 category, the absolute number of births declined from 16 in 1979 to 10 in 1982. The percentage of such births to nonwhites declined from 100 percent in 1979 to 80 percent in 1982.

The absolute number of births to 15-19 year olds declined from 426 in 1979 to 371 in 1982. The percentage of nonwhites accounting for these births declined from 73 percent to 68 percent in 1981. It rose again in 1982 to 70 percent.

Births to Portsmouth women of all ages declined from 2,021 in 1979 to 2,004 in 1982. The percentage of these births to nonwhites declined from 55 percent in 1979 to 46 percent in 1982.

In Norfolk, Virginia, the disparities were in the same direction as the other cities and across the state. The differences were not as pronounced in some categories. Table 5 shows the number and percentages by category for births by race for 1979 through 1982, the most recent years available.

From 1979 through 1981, there was a decrease in the absolute number of births to teenage mothers in Norfolk from

1,046 in 1979 to 951 in 1981. In 1982, the number climbed to 983, an increase of 3 percent over the previous year. The racial composition of the various age categories over the four year period was fairly stable. The exception was the under 15 category in which nonwhites accounted for 95 percent of births in 1979, 82 percent in 1980, 81 percent in 1981 and 87 percent in 1982.

TABLE 5

LIVE BIRTHS IN NORFOLK, VIRGINIA

	Total Teenage	Under 15	15-19	Total All Age
1979				
TOTAL	1,046	21	1,025	5,269
NW	596 (57)	20 (95)	576 (56)	2,512 (44)
W	450 (43)	1 (5)	449 (44)	2,957 (56)
1980				
TOTAL	1,012	22	990	5,021
NW	574 (57)	18 (82)	556 (56)	2,256 (45)
W	438 (43)	4 (18)	434 (44)	2,765 (55)
1981				
TOTAL	951	26	977	5,090
NW	505 (53)	21 (81)	526 (54)	2,174 (43)
W	446 (47)	5 (19)	451 (46)	2,916 (57)
1982				
TOTAL	983	23	960	5,365
NW	557 (57)	20 (87)	537 (56)	2,254 (42)
W	426 (43)	3 (13)	423 (44)	3,111 (58)

SOURCE: Eastern Virginia Health Systems Agency, 1983.

Table 6 summarizes the percentage of live births by race for 1979 and 1980, the two most recent years for which national data are available. Nationally, statewide, and in each city for both years, nonwhites under 15 accounted for appreciably more births than nonwhites of any other age category.

TABLE 6

PERCENTAGE LIVE BIRTHS

	Total Teenage		Under 15		15-19		Total All Age	
	1979	1980	1979	1980	1979	1980	1979	1980
=====								
USA								
NW	31	30	59	59	30	30	20	20
W	69	70	41	41	70	70	80	80

Virginia								
NW	41	40	66	67	40	40	26	26
W	59	60	34	33	60	60	74	74

Norfolk								
NW	57	57	95	82	56	56	44	45
W	43	43	5	18	44	44	56	55

Portsmouth								
NW	74	71	100	82	73	70	55	55
W	26	29	0	18	27	30	45	45

Richmond								
NW	81	82	90	100	81	82	64	66
W	19	18	10	0	19	18	36	34

SOURCE: Eastern Virginia Health Systems Agency, 1983.

Another way to consider the data on births is presented in Table 7. Table 7 shows the percentage of all births in a given geographical location accounted for by teenagers. Again the data are confined to 1979 and 1980 so that national comparisons can be presented.

TABLE 7

 PERCENTAGE OF BIRTHS ACCOUNTED FOR BY TEENAGERS

	1979		1980	
	Percentage	Total	Percentage	Total
<hr/> USA				
NW	5	16	5	16
W	11		11	
<hr/> Virginia				
NW	6	15	6	15
W	9		9	
<hr/> Norfolk				
NW	11	20	11	20
W	9		9	
<hr/> Portsmouth				
NW	16	22	16	23
W	6		7	
<hr/> Richmond				
NW	17	21	16	20
W	4		4	

SOURCE: Eastern Virginia Health Systems Agency, 1983.

In 1979 and 1980, 16 percent of births in the United States were to teenagers. In Virginia in those years, 15 percent of births were to teenagers. In Norfolk, 20 percent of births in 1979 and 1980 were to teenagers - a 25 percent increase over the national figure and a 33 percent increase over the state. Births in Portsmouth and Richmond were similarly above the national and state figures.

The Virginia Response

Programs of continuing education for pregnant teens have existed in Virginia since 1968. In both Portsmouth and Richmond, Virginia, the programs have been single-site facilities, sharing their buildings with other programs. Enrollments have been small. Curricular offerings have approximated the regular schools' curricula, though many advanced courses have been unavailable. In June, 1981, the program in Portsmouth was deleted due to budget cuts. As of September, 1983, this program had not been reinstated nor was there any plan to do so. The Park School in Richmond continues to operate there to the present.

In Norfolk, in 1969, the program of continuing education for pregnant teens was initiated. The educators involved felt a need to offer decentralized education to the pregnant teens in the system. The response of the wider community was evidenced by the concealment of the first center's location. School authorities felt that the essential privacy required by the girls would be violated if the location were made public. There is some ambiguity about

the theoretical foundation for the initial format of the program. One of the initial center managers remembered the decentralized format as a theoretical imperative, making the centers accessible to the pregnant teens they would serve (confidential personal interview). One of the initial administrators remembered decentralization as a pragmatic imperative. All space was donated and no facility had enough space for a large group of pregnant teens (confidential personal interview). During its history, Norfolk's Continuing Education Program (CEP) was expanded to include four decentralized instructional centers located across the city of Norfolk. A fifth center was used for home economics classes and business classes. CEP had a half-time counselor, no cafeteria, no physical education program. When the center on the west side of the city was closed at the end of the 1978-1979 academic year, the overall enrollment of the program remained approximately the same as it had been. Table 8 shows the numbers of girls served yearly from 1970 until the termination of the program. These figures were provided by the program administrator of the Norfolk CEP. Enrollment remained stable due to the bussing of students.

TABLE 8

YEARLY ENROLLMENT IN NORFOLK CEP BY ACADEMIC YEARS

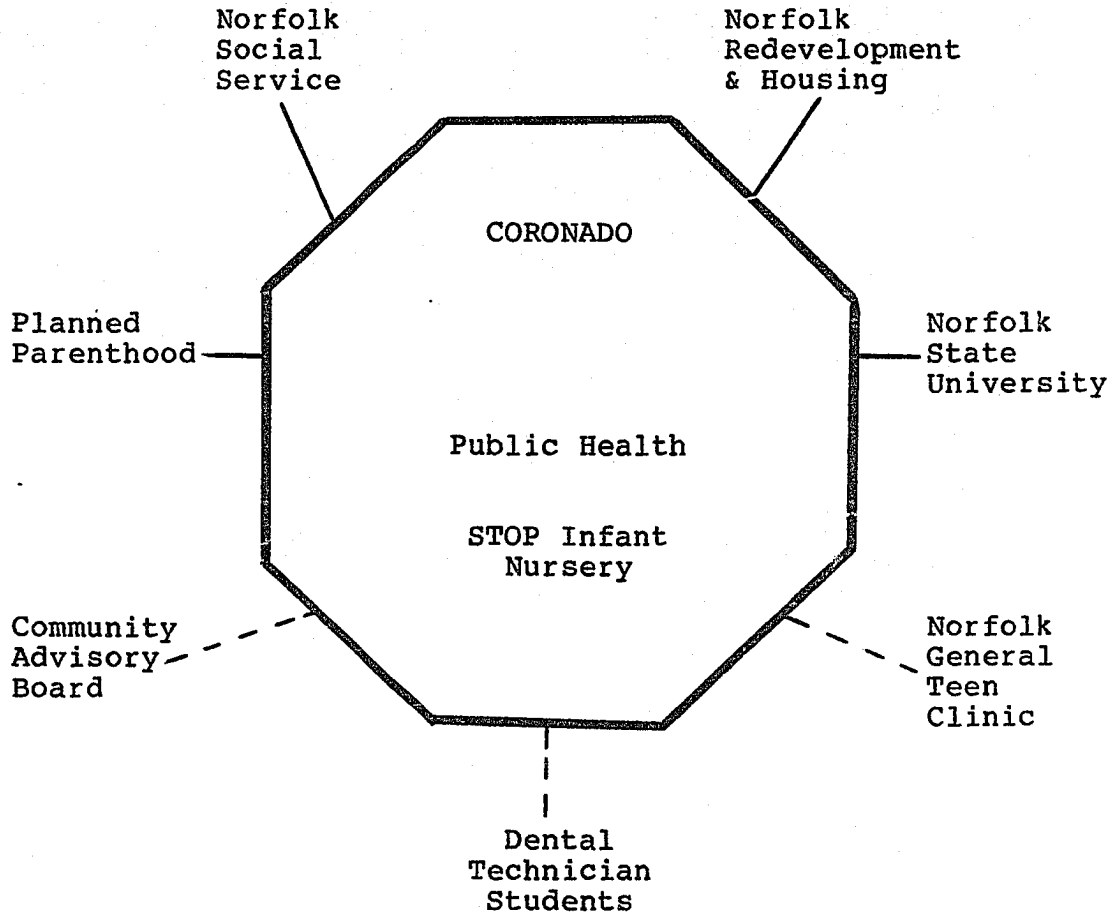
Year	Enrollment
1970-1971	256
1971-1972	286
1972-1973	270
1973-1974	292
1974-1975	305
1975-1976	378
1976-1977	335
1977-1978	301
1978-1979	222
1979-1980	209

In the spring of 1981, the Coronado component of the Norfolk Adolescent Pregnancy Prevention and Services Project (NAPPS) superseded the Norfolk CEP. The new linkage approach to service delivery offered by NAPPS included Coronado, a centralized instructional center operated by Norfolk Public Schools. All classes for pregnant teens were now located under one roof. Coronado has a full-time counselor at the school, full cafeteria with Federal breakfast and lunch programs, and physical education in addition to accessibility to other community agencies.

Figure 1 shows the linkage network devised by NAPPS. This was designed to provide comprehensive service to the pregnant teens of Norfolk, Virginia.

The STOP Infant Day Care Center and the three Public Health nurses were located within the Coronado School. Personnel from Planned Parenthood, Norfolk Social Services, Norfolk Redevelopment and Housing and Norfolk Community Hospital were located in their respective agencies. Agencies received or made referrals to one another based on the

Figure 1. NAPPS model



NAPPS Agency _____

Community Agency - - - - -

individual case. Coronado is a single centralized instructional facility.

Community agencies such as Norfolk Social Services, and Planned Parenthood existed while CEP was in operation. Not until NAPPS and Coronado was there a formal linkage of these agencies and Norfolk Public Schools with a goal of coordinated service delivery. The linkage was designed to enhance service delivery.

Design of This Research

Among the variables which account for the success or failure of any educational program is its organizational format. As the transition from Norfolk's decentralized CEP to the centralized Coronado facility was being planned, evaluation questions were being framed by the administrators responsible for the program. The substantive question posed by the Norfolk School Board was: Is a centralized or a decentralized organization more beneficial in a program of continuing education for pregnant teens? The present research was designed to answer that question.

In making comparisons it is imperative to remember that the centralized Coronado School is part of the larger program, NAPPS. The effect of the larger program must impinge in some way on the school. In this sense, the larger program may be considered to be a part of Coronado. Although it is not the larger program which is being evaluated here, the recommendations which result may concern NAPPS.

To measure the benefit of the programs, the following variables were selected. Self-concept is widely considered to be a psychological determinant of many types of behavior--social, emotional and academic. Career expectations are important to all adolescents and especially so to a single parent who may be financially responsible for the economic welfare of her family. School attendance and achievement are logically connected and pertinent to future success for adolescents. Thus the following research questions directed this study:

1. Are the self-concepts of pregnant teenagers enrolled in various programs of continuing education significantly different from one another?
2. Is the vocational awareness of pregnant teenagers enrolled in various programs of continuing education significantly different?
3. Are the rates of attendance of pregnant teenagers significantly different in various programs of continuing education?
4. Are the academic achievement scores of pregnant teenagers enrolled in various programs of continuing education significantly different?
5. Do the rates of return to regularly assigned schools by formerly pregnant teenagers enrolled in various programs of continuing education differ significantly?

The initial research design intended for use in answering these questions was a pre-test post-test control group design as pictured in Figure 2. In this paradigm, the Norfolk CEP was considered to be the pre-test and the Coronado the post-test group. The change from decentralized to centralized format was considered to be the experimental treatment. Testing in the Portsmouth CEP was to have been conducted simultaneously with Norfolk pre- and post-tests.

Figure 2. Original Research Design

	<u>Pre-test</u>		<u>Post-test</u>
Norfolk	0 CEP	X	0 Coronado
Portsmouth	0 CEP		0 CEP

The Continuing Education Programs of Norfolk and Portsmouth Public Schools were considered to be the equivalent pre-test groups. Although random selection into programs was not possible, Portsmouth was considered to be a control group for Norfolk due to demographic similarity and because the populations of both groups were to be observed. The population of Portsmouth Public Schools is similar to Norfolk Public Schools in racial composition and socioeconomic status. Because the populations of the programs were to be observed rather than non-random samples, it was appropriate to consider this a control group. Following the change to the centralized instructional format, the Norfolk and Portsmouth groups were to be post-tested. The introduction of the centralized program of instruction was considered to be the experimental treatment to be measured.

With the June 1981 closing of the Portsmouth CEP, the research design was modified to include the Continuing Education Program of Richmond (See Figure 3). A post-test only control group design was selected. This was intended to provide data to answer the research questions. A true control group was no longer possible. However, the use of

the three programs alternative to Coronado was considered appropriate for comparison.

Figure 3. Revised Research Design

Post-test Only Control Group Design

Coronado	X	0
Norfolk CEP		0
Richmond		0
Portsmouth		0

This dissertation consists of four additional sections. Chapter 2 presents a review of the literature relevant to adolescent pregnancy within the concerns of this research. Chapter 3 describes the methodology, both qualitative and quantitative, used to implement the study. At each site, the researcher administered all instruments to the students. All interviews of staff, administration, and families and students were conducted by the researcher in person. Chapter 4 reports the data gathered. The quantitative results are presented and analyzed. The qualitative data are systematized. Chapter 5 provides substantive answers to the research questions. Conclusions are drawn and recommendations offered to improve the effectiveness of the Coronado program. In keeping with the evaluation approach adopted, recommendations have been offered as appropriate throughout the study to the program administrators responsible for decision-making.

CHAPTER 2

SURVEY OF THE LITERATURE

Introduction

Adolescent pregnancy has been studied from a variety of perspectives. Since early in the twentieth century, social workers have attempted to define the etiology, to delineate the causative factors responsible for the growing phenomenon of school age parenthood. The medical field has also had an interest in adolescent pregnancy. The health risks to young mothers and to their babies is heightened over those to mothers over 20. Babies are more likely to face illness or death and mothers are more likely to face complications (Osofsky, 1968).

Society feels the impact in the welfare dependency which results from truncated educational careers as well as the social programs created to serve mothers and children. According to Baldwin (1976), none of these components bodes well for the actors in this social drama. The nature of the present research dictates the following systematization of the large body of literature relevant to adolescent pregnancy.

This survey of literature contains five sections. Section one briefly introduces the literature of evaluation research relevant to adolescent pregnancy programs. Section two summarizes the traits of adolescents which makes them distinctive. Section three considers the etiological factors which lead to adolescent pregnancy. Section four surveys the extant literature on school-related measures. The final section describes programs of continuing education available for pregnant teens.

Evaluation Design

Evaluation research literature focuses on the utilization of evaluation or its absence. Political influences, in the broadest understanding of the term, must be considered both in the implementation and the product of program evaluations. Berk and Rossi (1977) pointed out that our social programs are constrained by the limits of the dominating political ideology.

Experimental designs utilizing randomization and true control groups are likely to neglect the historical and social influences under which a program operates. In education the experimental design is unfeasible and may well be unethical also. Withholding an available program treatment from a potential client is not likely to be tolerated by the constituency, nor is it desirable from the humanitarian standpoint. This is especially true when a condition, such as pregnancy, will not wait for future intervention.

Recent impetus to reform of program evaluation seeks to make systematic evaluation more responsive, and thereby more useable, to its consumers. The principal goal is that society learn about itself, that alternative plans for social action be generated (Cronbach, Ambron, Dornbusch, Hess, Hornik, Phillips, Walker and Weiner, 1980).

Utilization-focused evaluation (Patton, 1978) emphasizes the process as it affects the eventual impact of the findings. The final report does not emerge like a jack-in-the-box from some darkly shrouded evaluation design. The evaluator is admonished to work closely with decision-makers to generate the appropriate evaluation questions, to establish trust and rapport as well as to provide on-going feedback.

Implicit in this paradigm and evidenced by this dissertation is the requirement for flexibility and sensitivity to make decisions and create questions that will have useable answers. The original research design was a pre-test post-test comparison group design. Following deletion of the Portsmouth comparison group due to budget cuts, the design was modified to include a group of pregnant teens from the Richmond Public School system. In effect, three comparison groups now were available for comparison with the Coronado school group in a post-test only comparison group design.

Comparing programs to one another is an acceptable way of assessing program effectiveness. Ample support exists in the literature for the use of such a design. "The best and

most relevant test of a program is to compare it to a competing program which might be adopted" (Fitz-Gibbon and Morris, 1978, p. 33). Tuckman (1979) defended comparison groups and suggested the use of other districts for school comparisons, when these school districts had matching school populations. This is the case in the Portsmouth and Richmond populations whose demographics match that of Norfolk. Etzioni (1964) emphasized the importance of comparing working organizations to one another rather than to theoretical ideals.

A somewhat different but equally significant issue is the conflict between statistical and substantive significance (Berk and Brewer, 1978; Crane, 1978). Findings must be translated into relevant recommendations or they are worthless.

If evaluation research findings are to be believable, they must be buttressed by multiple methods and measures (Patton, 1978). The present research has employed both qualitative and quantitative data-gathering strategies. Students from each group completed standardized instruments administered by the researcher in person at their schools. All teachers and administrators who came in contact with the Norfolk groups were contacted for interviews before and after the transition from one program to the other. A random sample of students and parents or guardians was selected from each Norfolk group for in-depth interviews and

follow-up. The results of these interviews and observations are presented in Chapter 4.

Characteristics of Adolescence

The following section presents various ways that adolescence and its problems have been defined in the literature. Adolescence is a significant stage in the development of the mature personality and yet its social and emotional development have been the least studied (Hartup, 1981).

Much that has been written on this subject can be attributed to Erikson (1959, 1964, 1968). In dividing personality development into definitive stages, Erikson postulated a specific developmental task for each stage. To adolescence he assigned the establishment of ego identity. This sense of psycho-social identity develops out of integrating the various identifications a child is able to make. Awareness of power, one's personal place in a social context and sexual identity are components of this integration. The specific task of adolescence is to finalize this identity. When the task is appropriately achieved the adolescent has self-certainty, a sense of inner assuredness. Once the identity is established in adolescence, the conflict between intimacy and isolation is to be resolved in young adulthood according to Erikson.

American culture sexualizes its teens prematurely. Teenagers are faced with a later developmental task before they have completed an earlier one - whether or not to

engage in sexual activity, to develop intimacy, before they have securely established their identities.

Sexuality is not the central task of adolescence. The true task is to create and affirm one's individual style of being a woman or man. But the biological traits of puberty are accentuated by the socialization process. What many adolescents lack is personal models for sexual identity and accurate sexual information (Matteson, 1975). Adolescence is a social process, the fundamental task of which is clear and stable self-identification, not just the process of sexual maturation (Friedenberg, 1959).

The formation of identity and the exceptional growth spurt of adolescence are generally accepted. Adolescence as pathological is not. There is not universal agreement that adolescence is a problematic period. Lipsitz (1979) emphasized the variability of adolescence - especially in the young adolescent - and the discontinuous, unsynchronized growth characteristic of the period.

Experimentation is an essential in gaining experience in decision-making. Adolescent youth need to reflect on themselves relative to others, to acquire a sense of belonging, to develop feelings of accountability. Konopka (1973) emphasized the importance of trying out roles without irrevocable commitment. However, a pregnancy, whatever its termination, is irrevocable.

Friedenberg (1959) maintained that adolescence in our society is a vanishing phenomenon. By this he meant that the true self-analysis and testing necessary are no longer

taking place. Our teenagers undergo puberty and simulate maturity (Friedenberg, 1959).

One of the most difficult tasks of the adolescent is the necessary separation from parents and family (Lipsitz, 1979). Individuality and growing independence impel adolescents away from their parents. The peer group moves into the void as adolescents try to assuage their real hunger for something to love (Walters, 1965). Adolescents were influenced more by parents in 1974 than in 1964 on the issues of moral courage, responsibility, loyalty, honesty and friendliness, but still not as much as they were influenced by their peers (Lasseigne, 1975). Socioeconomic differences were found to exist in parent-youth relations. The higher socioeconomic adolescent was more attracted to parents than the lower socioeconomic group (Curtis, 1975). However, this author found no evidence that friends became more influential through the adolescent lifecycle of the groups under study even though most could be classified as low socioeconomic status.

The quality of adolescent-adult interaction was found, not surprisingly, to be related to peer-group involvement. Iacovetta (1975) found that for white, male high school students from a midwestern inner city the lower the quality of adolescent interaction with adults, the higher the peer-groups involvement. These findings were true for peer group interaction, peer dependence and autonomy of interaction with peers (the extent to which activity with peers is outside the control of adults).

Our culture stresses individuality as a national virtue. Yet peer conformity as a condition for popularity among adolescents was higher in 1976 than in 1960 (Sebald, 1981). Research has shown that for both males and females the peer group is the major source of sex education (Shenker, Nussbaum, Fisher and Katz, 1979).

The peer group may be romanticized by teenagers as a sanctuary from the demands of domineering parents. There is evidence that the peer group is even more tyrannical than the family ever was. The needed emotional security is conspicuously absent from the competitive peer group. Status is a constant concern (Keyes, 1976). This has been termed a "crisis" for female adolescents whose conflict between dependence and independence is still especially acute (Dowling, 1981). The male subculture, it was found, had not changed much from its stereotype as macho, dominant, aggressive. Still influential, the emphasis was on the pent-up sex drive of a female which could be released by the right technique (Berg, 1975). Brown (1978) posited an adolescent subculture which controls lifestyle, values and even personality for early adolescents.

Mitchell (1975) defined five moral dilemmas of early adolescence--sexual behavior, independence, conscience, double standard, and conformity. All these require adopting peer group rules as well as formulating personal ones.

Dating is a significant component of the adolescent lifestyle. It provides a social context in which experimentation may occur. Two studies of white preadolescents and

adolescents provided information on this activity. Jackson (1975) studied 11 and 12 year olds in a small mid-western city. These lower middle class preadolescents had imprecise ideas about dating. Very few males or females saw dating as a context for personal growth. Six percent of the girls and nine percent of the boys saw dating as a chance to get to know each other better.

Place (1975) studied the dating experience for 15 and 16 year old sophomore girls. These middle income whites saw dating as fun and exciting, albeit scary. They felt they would have somebody to talk to. For the lower income teen, dating may be a very different experience. Interviews at the Coronado School suggested that there was little to do and few places to go. When funds are limited, activities are limited.

However one conceptualizes adolescence, the common factor is stress, either intrapsychic or intergenerational. Nowhere in the literature is adolescence described as joyous. Agreement also seems prevalent that the adult process of child-bearing and child-raising inhibits normal teenage growth and development (Johnson, 1974; Walters, 1965).

Personality traits of adolescents have been described. Their verbal and conceptual ability is likely to be less than that of adults (Enos and Hisanaga, 1979). They vacillate between independence and dependence. Hormonal changes precipitate affective states (Petrella, 1978). Heightened

emotionality is evidenced by extreme sensitivity and variable emotions (Twiford and Carson, 1980).

The adolescent does not exercise self-control nor have the ability to foresee consequences. This is another way of saying that the adolescent does not exercise control over his/her feelings of omnipotence (It can't happen to me. . .) (Polsby, 1974). Lipsitz (1979) called this type of egocentrism the "personal fable." In this form of the personal fable, the adolescent views herself as different from everyone else. Risk-taking is condoned because "I am unique, I will not get pregnant." The adolescent's need for independence and autonomy are the very antithesis of what she will require if pregnant and mothering. A baby will need nurture and an adolescent mother may very well need the daily support of her nuclear family at the very time she would otherwise be moving away from that unit (Zuckerman, Winsmore and Alpert, 1979).

The extended period of educational and vocational preparation precludes adolescents from full participation in society (Klerman, 1975). In addition, a whole segment of black America sees itself as rejected and alienated from a basically white middle-class achievement orientation (Clark, 1965; Liebow, 1967).

Paul Goodman (1965) characterized the problems of growing up as objective rather than psychological. He stated that our society lacks opportunities for worthwhile experience for adolescents. He excluded girls from career hunger, citing motherhood as "absolutely self-justifying".

It is painfully ironic that this thinking, in conjunction with the pressures of the women's movement to achieve, has intensified the problem of adolescent pregnancy. A girl who sees no future for herself in career achievement may hide in motherhood too early and with too little understanding. The result is a generation of women which sees itself as a failure. Children of these women may grow to adulthood under this shadow. The implications for the male and female children may differ, but in general, the result is to produce less capable individuals than society needs or the individuals might otherwise have been.

Other influences on adolescence have been studied. These include sex, race, socioeconomic level and birth order. Bronfenbrenner (1961) studied methods of child rearing. He found that girls were exposed to more affection and less punishment than boys. Girls were found to be more cooperative and obedient but also more timid and anxious, dependent and sensitive to rejection.

Class differences in child rearing have also been observed. Elder (1962) found lower class parents more autocratic and rejecting than middle class parents. Davis (1967) even divided the classes more narrowly in terms of socialization of the child. She claimed that the social goals of the lower-middle class were fundamentally different from those of the lower class. In terms of raising children, the lower-middle class parent pushes the child to achieve in school and to inhibit sexual impulses. The lower

class child remains unrewarded for the same behaviors and eventually learns that the middle class goals are undesirable. The view of Davis may appear antiquated in the present. The personnel who people the schools, however, may have been inculcated with just such theory. As such, their expectations will influence their behavior toward the students they serve.

Schachter (1959) studied differences between first-born children and their younger siblings. First-born children tended to receive more attention and ended up more anxious and dependent than later-born children. Later children were more aggressive and self-confident.

Little information is available on child-rearing practices of black families as distinct from those of whites. This may be due to the fact that there is no unified entity such as the black family, despite the stereotype of the black family as matriarchal, broken and disrupted. In fact, forty-seven percent of all black households with children in 1982 were headed by a single mother (Cummings, 1983). Black families react to the stresses of their life situations as do any other families. The pathological model used to define black families (Scott and McKenry, 1977) still seems to affect the thinking of the professionals working with certain black students.

The characteristics described are among the variables which influence adolescent males and females to make the life choices that they do. A personal account of "Sharon", a 15-year-old mother, summarized many of the thoughts

typical of the adolescent (Whitley and Corbett, 1978). "If I didn't succumb, I'm sure he would have gone to someone else for his needs satisfaction and I thought I'd have to give him up and I didn't want to right then." She thought her parents had to go with her to get birth control so she avoided it. "I was pregnant when I started thinking seriously about Birth Control (sic)." She was not happy about getting pregnant at all. "My friends were all excited, but even this didn't arouse my spirits." Following the birth of her son, "Sharon's" feelings changed. "My baby - he was all mine!" Threaded through her whole narrative were this teenager's feelings of isolation and loneliness. Her pregnancy, the result of a desire to dispel feelings of isolation, ended by accentuating them.

Etiology of Adolescent Pregnancy

Confounding variables abound in the causation of adolescent pregnancy. The expectant teen mother today is often poor, though not always. She is frequently black (Dott and Fort, 1976). She is probably single. She may or may not want the infant she will bear though the likelihood is great that she will not relinquish it for adoption. It is with this complexity in mind that the following overview of the etiology of adolescent pregnancy is presented. The purpose is to further expand the theoretical framework for this dissertation.

Early in the 20th century, the unmarried mother was studied. Admitting possible bias toward the lower social

class, Kammerer (1918) studied the case records of 500 unmarried girls who gave birth. Two hundred and twenty-eight of these conceived before age 20. He mentioned poor home conditions, early sex experience, recreational and educational disadvantages as etiological factors. For this group of unmarried teenage women, poverty was the overriding predictive variable.

In 1954, Edlin described her work at Lakeview Home on Staten Island, a residential facility for Jewish girls. Psychological maladjustment deriving from an unwholesome parent-child relationship, not poverty, was considered to be the primary cause of out-of-wedlock pregnancy for these girls.

Writing in the same year, Young (1954) stressed the purposive nature of the pregnancies. Coming from homes dominated by one parent, the girls were seen as possessions by their mothers. Deprived of love in their early years, stimulated by society as adolescents, the girls had no definite place of their own, no clear future direction. Their pregnancies resulted from a desire to have a baby, specifically out-of-wedlock with no husband to share the child. Again, infants were seen as possessions, repeating the cycle.

Vincent (1961) is frequently cited in the literature on the etiology of adolescent pregnancy. He defined the "fun morality", a general attitude of non-responsibility, a devil-may-care approach to life. If an activity is available, why not try it. This definition resulted from inter-

views with 212 unwed mothers in maternity homes. He found no significant differences in parent-child relationships between these girls and single never-pregnant high school senior girls. Vincent found that the unwed teen mother's attitudes about pregnancy ranged from disgust through indifference to exhilarated feelings of completeness. The significant question was raised as to whether attitudes reflected temporary psychological results of the pregnancies or pre-existing causes of them.

Psychotherapeutic work of varying durations with pregnant adolescents provided support for a number of conclusions. Khlentzos and Pagliaro (1965) stated that chance pregnancy is improbable. Unwed mothers seek gratification from partners not found from parents. Interestingly, their sample was differentiated by age. For 15-16 year olds, feelings of loneliness predominated. For 18-19 year olds, feelings of worthlessness were more prevalent. A period of intensive psychotherapy of 18 months or longer was recommended to remediate the psychological problems which were observed.

More recently, adolescent pregnancy was defined as a choice - either conscious or unconscious. Young mothers were seen to view pregnancy as a desirable alternative to their present situations (Perkins, Nakashima, Mullin, Dubansky and Chin, 1978). Schulz (1969) described the dilemma. In the ghetto, having sexual relations to please your boyfriend is considered normal. Ignorance of effective contraception or fear of its use is prevalent. Not to

acquiesce means isolating oneself from a central aspect of teenage life. And a baby is an immediate mark of maturity. Colton (1971) asked, "What deep, hidden subconscious needs are they filling by clamping themselves inside this physical and psychological vise (of motherhood)?"

There is not universal agreement, however, that adolescent females choose their pregnancies deliberately. Misinformation about methods and poor access to effective female methods of birth control were found in a predominantly black sample of pregnant adolescents in Baltimore. Most of these girls stated that they did not want to be pregnant (Furstenberg, Gordis and Markowitz, 1969).

Ryan (1976) reported that the poorer a girl is, the less likely she is to have access to the knowledge and resources for appropriate family planning. He showed that the poor are very willing to use contraceptives if given the opportunity.

Burbach (1980) studied fifty-one females aged fifteen to twenty-one--twenty-five black, twenty-six white--in three counties of a Southern urban area. Of their fifty-one pregnancies, forty-two were unplanned. Fifty-two percent of ~~the girls gave correct answers to all questions on at least~~ one method of contraception. It is clear that knowledge is not enough.

Unmarried mothers expressed a variety of non-sexual impulses about sexuality (Josselyn, 1965). These included feelings of inadequacy, of competition with their mothers, hostility toward men expressed by making them capitulate to

women, and wishes to be loved or to have a baby to identify with.

Rader, Bekker, Brown and Richardt (1978) investigated denial, masochism and sex guilt in single white college women. The use of denial of reality and tendencies toward self-directed aggression found support as factors contributing to failure to take precautions against pregnancy. Although this study sample differed considerably from the present one, denial as a personality trait is a common factor.

Chastity is no longer a requirement for self-esteem among young women as it once was. If anything, the reverse may be true. Fidelity has replaced chastity as the goal of social relationships (Walters, 1965). Zelnik and Kantner (1981b) found a continued increase in the prevalence of premarital intercourse during the 1970s. There was a 30% increase (from 1971 to 1976) in unmarried teenagers who admitted to having had sexual intercourse.

Miller and Miller (1983) reported even higher figures for the United States in 1978. They found that twelve million of the twenty-nine million persons between thirteen and nineteen years of age had intercourse in that year. Eighty percent of males and 70% of females reported having had intercourse while still teenagers.

Contributing factors cited to account for the increase in sexual activity among teenagers have been social values, the women's liberation movement, the rising divorce rate, the decline of parental and institutional authority and the

fatalistic sense of impending disaster (Elkind, 1981). Klein (1978) emphasized the sexuality of contemporary society in conjunction with the failure to provide sex education and the necessary family planning services as antecedents of adolescent pregnancy. Zelnik, Kantner and Ford (1981) concluded that a two-parent family is related to later ages at first sexual intercourse and pregnancy. Hogan and Kitagawa (1982) corroborated this finding and added that parental supervision is still a deterrent to coitus and pregnancy.

In early adolescence, the universal hunger that young girls develop for something to love is sexually neutral. Later, more heterosexually charged love objects are a means of emancipation from the mother (Walters, 1965). The mother of the pregnant teen loomed large in other works on the subject. Short-term work in a maternity home (Friedman, 1966) identified the mother-daughter relationship as causative of adolescent pregnancy. In Baltimore, Fischman (1977) found that young women who delivered and kept their babies reported much closer relationships with their mothers than those who chose abortion. Again, there is no indication whether the closeness preceded the pregnancy or resulted from it.

Communication between mothers and daughters has been studied for its contribution to the problem of adolescent sexual activity. Girls with sexual experience talked more about sexual subjects with mothers. It may be that communication resulted from parents' perceiving their daughter's

sexual activity (Fox and Inazu, 1979). Lewis (1973) found that discussion of more sexual topics was associated with less likelihood of coital experience. Perhaps in this area, as in so many others, the forbidden and mysterious is an overwhelming attraction, especially to a teenager trying to establish an identity. Even contraceptive use has been associated with open communication between mother and daughter. Open communication is associated with more effective use of contraception (Campbell and Barnlund, 1977; Fox, 1979).

Contraceptive use or its lack is certainly pertinent to the etiology of adolescent pregnancy. As cited above, knowledge of contraception does not guarantee its use. In 1971, four-fifths of sexually experienced teens had intercourse unprotected by contraception (Shah, Zelnik and Kantner, 1975). A particular commentary from the ghetto culture added an interesting note to the contraceptive issue. When sexual relations occur within a romantic context, the man is less inclined to use birth control or to be concerned about the woman's doing so. Finding the woman companionable, the man would not mind "helping out" with support for the child should one result from the relationship (Liebow, 1967).

Once they become mothers, teens behave differently from older mothers. Frequently caretaking is shared with the extended families of the babies (Field, Widmayer, Stringer, Ignatoff, 1980). This may enhance the educational outcome for the young mother, but her maternal self-image is

more insecure (Zuckerman, Winsmore and Alpert, 1979). These authors point out that the developmental need of the adolescent for autonomy and separation from her nuclear family create a vacuum which must be filled if her parenting is to be successful. This is aggravated when teens have more than one child. In any year about one half of all illegitimate children are born to unmarried mothers who already have one child (Juhasz, 1974). Even after their teens, adolescent parents have more children than their classmates. This obviously impacts on the personal and professional lives of both mothers and fathers (Card and Wise, 1981).

Adolescents differ from older mothers in typical maternal behaviors. Adolescent mothers studied by McAnarney, Lawrence and Aten (1979) used less touching, high-pitched voice and synchronous movement and closeness to the infant than older mothers. DeLissovoy (1973) found young parents to be intolerant, impatient, insensitive and irritable. They were prone to use physical punishment and had unrealistic expectations of developmental norms. These findings were corroborated by Field, Widmayer, Stringer and Ignatoff (1980).

Liebow (1967) described paternal behaviors among street corner men in a black urban ghetto. These men want children to confirm their masculinity or to keep their girlfriends, but their relationships with the children are secondary. Physical contact between father and child is infrequent and inconsistent. Although illegitimacy is not a

deterrent to the father-child relationship, the legitimate child is preferred. Given the similarity of the study group to that described by Liebow, the single, pregnant teens observed can expect to be responsible for their children without the continuing input of the child's father.

As the erratic behavior of adolescence is intensified by pregnancy and parenthood, educators attempt to ameliorate aspects such as school achievement and career development. The following section of this survey of literature will consider measures of self-concept, vocational awareness, achievement, and attendance as they relate to the school environment before describing programs devised to serve the pregnant adolescent.

School-Related Measures

The following section reviews literature relevant to the school-related measures of this study - self-concept, vocational awareness or understanding, achievement and attendance. Each is considered separately where possible, but the relationship between them cannot in many ways be divided.

Self-Concept

This psychological construct is defined and presented first because of its centrality. It is a basic personality element, often credited with responsibility for a wide variety of behaviors including the others to be reviewed in this section. A discussion of the remediation of deficits

in self-concept begins in this section and concludes in the final chapter on recommendations.

Self-concept is alternately referred to as self-image, self-esteem or identity. What is meant is a self-evaluation learned through social interaction with others (Horrocks and Jackson, 1971; Burns, 1979). Self-concept orients an individual to her world. Self-concept influences emotions and cognitions as well as interpersonal relationships (Wylie, 1961; Gergen, 1971). Self-concept refers to one's feelings of self-worth and competency (Brown and Renz, 1973).

A person with high self-esteem or a positive self-concept will be better able to deal with anxiety, will be independent, self-confident and outspoken and have good social relationships (Coopersmith, 1967). Rosenberg (1965) credited high self-esteem or a positive self-concept with achievement motivation and a reduced sensitivity to criticism.

Purkey (1970) found the relationship between self-concept and academic achievement to be significant and persistent. Pilisuk (1962) found that adolescent self-concept changed during high school in accordance with scholastic performance. Fantini and Weinstein (1968) also credited self-concept with academic achievement. Self-concept suggests the level of standards an individual sets for his/her behavior (Gergen, 1971). Individual behavior is determined by what one believes oneself to be (Jones Stefflre and Stewart, 1970).

A child's identification with a like-sex adult comes from a general motive for structure and to preserve a positive self-image (Kohlberg, 1966). The self-concept structures behavior in that people act to reduce conflict and to be consistent with self-concept (Festinger, 1957; Purkey, 1970; Jones, Stefflre and Stewart, 1970). Super (1957) saw self-concept as a determinant of interests, life-style and habits. Super related personality to occupational choice in his developmental theory of vocational behavior. He maintained that vocational choice is an expression of one's self-concept.

Coopersmith (1967) studied preadolescent middle-class normal white males. From this study, he defined the antecedents of positive self-concept:

1. acceptance of the child
2. clearly defined and enforced limits
3. respect and latitude for individual action within limits
4. parents who are competent, poised, self-assured and compatible

Parents and family are considered to be the single greatest determinant of self-concept (Burns, 1979; Jones, Stefflre and Stewart, 1970). Faber and Mazlish (1980) recommended that parents show respect for a child's feelings, offer choices to be made and problems to be solved to facilitate the growth of self-esteem and confidence. Peer (1982) criticized educators for maintaining an incomplete conceptualization of pupil self-esteem or positive self-concept. He emphasized high expectations and firm discipline as key

antecedents to self-esteem. This view corroborates Cooper-smith (1967).

The stability of self-concept is of particular importance to the results of this study. Self-esteem has been reported to be stable (Hansen and Maynard, 1978; Jones, Stefflre and Stewart, 1970) even in adolescents (Engel, 1959). The substantive question is important here: Can a short-term program of educational intervention have a significant impact on the self-concept of pregnant adolescents?

Piers and Harris (1964) compared the stability of self-concepts of 8, 10 and 15 year olds over a four month period. The correlations were above .70, an indication of stability. No age differences were found. One-half of the standardization sample of the Piers-Harris Children's Self-Concept Scale was retested after four months with similar results (Piers and Harris, 1969).

Eley (1972) studied the effects of counseling on the self-concepts of 38 girls in the Norfolk Continuing Education Program for Pregnant Teens in the academic year 1971-1972. Group counseling was provided by the social work technician and the home economics teacher. The Tennessee Self-Concept Scale was administered the first and last day of each girl's participation in the program. Four areas were found to show statistically significant positive changes; self-satisfaction, behavior, moral-ethical self, and personal self.

Paschal and Williams (1970) also found that a special program of short duration could impact on the self-concepts

of adolescents. They studied the effect of Upward Bound on 15 females. They found that blacks had greater increases in self-concept than whites and girls had greater gains than boys.

Piers and Harris (1969) questioned whether the self-concept of young children could be stable, suggesting that it was a function of a given situation. They did maintain that by age eight self-concept was reasonably stable. The self-concept may or may not be stable, but it is not monolithic. That is, the self-concept has different aspects. It is fragmented, multiple (Gergen, 1971).

Burns (1979) considered physical attributes and their evaluation central to self-concept. Jones, Stefflre and Stewart (1970) divided the self-concept into two parts - the physical and the psychological. To elucidate, a young woman may be buxom and round. She can recognize this as her physical image. In American culture, the effect this has on the psychological image is much different and more negative than in Italian society where such bounty is considered voluptuous instead of fat. The cultural ideal of what a body should be like leads to differing degrees of satisfaction with one's self. This has been cited as particularly important during adolescence (Smith, 1962).

It seems that the variance in self-esteem accounted for by one's overall physical traits is due to a small number of body aspects and they are different for males and females. Mahoney and Finch (1976) found that for college females, overall attractiveness was more important than

bust, weight or waist. Musa and Roach (1973) found a relationship between self-evaluation of personal appearance and personal adjustment for junior high school females. Sixty-two percent of girls who rated their appearance below that of their peers were in the low range of personal adjustment as measured by the California Test of Personality.

Jones, Stefflre and Stewart (1970) claimed that the first year of life was the most important in the development of self-concept and that the self-image was essentially complete by adolescence. This view is far from universal, however. Because of the major biological, physical and social changes which occur in adolescence it is only logical that the self-concept will undergo modification during this life-stage.

The peer group in adolescence has been cited as influential in the refinement of self-concept (Fantini and Weinstein, 1968; Hayes, 1982; Burns, 1979). Peer acceptance is a vital need for the adolescent and recognition and acceptance by the group enhances self-concept (Foster and Miller, 1980). Kipnis (1961) found adolescent self-concept to grow more like those of best friends over time when the best friend was seen as a desirable personality.

Horrocks and Jackson (1972) stated that the adolescent self-concept was less secure than that of the child. They emphasized the importance of cognitive experience for the adolescent to develop adequate evaluation criteria for self

and others. Without these criteria there is the danger of stereotypic role adoption.

Friedenberg (1959) elaborated on the importance of experience in the establishment of self-esteem in the adolescent. With little experience and less objectivity, the adolescent is more vulnerable than the younger child. Any attack on her worth produces intense anxiety. In addition to anxiety, rebelliousness, self-glorification and confusion have been attributed in part to unstable identity or self-concept (Twiford and Carson, 1980). This can be seen to intensify the need for love and acceptance.

Even falling in love has been seen as a vehicle for clarifying the self-concept (Muuss, 1968). When adolescent love affairs eventuate in adolescent pregnancy, the teenage mother may be left with a baby, but without the resources to explore and develop a genuine place in society. Trapped in motherhood, her role is stereotyped.

Poor self-concepts have been seen to characterize many adolescent parents (White, 1980). Zongker (1977) studied how the self-concepts of pregnant adolescents differed from non-pregnant adolescents. He concluded that pregnant adolescents had lower self-concepts than non-pregnant girls of the same ages. He found the pregnant adolescents to be defensive, unstable, conflicted, with minimal personality integration.

Self-concept has been defined to develop through an interaction between an individual and her life circumstances. As life circumstances differ systematically by

groups, so the self-concepts of group members may be expected to differ.

Women and men have traditionally seen their roles as distinct from one another. Not only have these stereotypes existed, but they have been accompanied by value judgments. Male traits have consistently been valued as more socially desirable (Kitay, 1940; Komarovsky, 1946; Sherriffs and Jarrett 1953; Lynn, 1959; Cowen, 1961). It may be that girls perceive their female sex role as inferior in status and prestige to the male sex role. Incorporating such a view would diminish self-concept.

Men are seen as achievement-oriented (Bardwick, 1971; Coles and Coles, 1978) whereas success for women is defined by affiliation (Bardwick, 1971; Douvan and Adelson, 1966). Physical attractiveness, one key to affiliation, has been positively correlated with happiness and self-esteem for women but not for men (Mathes and Kahn, 1975).

An additional perspective on differences in self-concepts over groups is presented by the race/class distinctions which are still prevalent in our society. Ryan (1976) shifted attention from status to money when he considered mental health. To be poor is to be powerless and power is central to self-esteem. Without the capacity to influence the environment in one's own best interest, self-concept cannot be positive. Clark (1965) described the psychology of the ghetto as a pervasive and total sense of helplessness. Experience of life in the ghetto demonstrates this powerlessness. And this is the same experience from

which self-concepts derive. Grambs (1965) saw that the life experiences of the Negro child inhibit the development of a positive self-concept. Banks (1972) also recognized the importance of the sociocultural environment and interpersonal relationships which generate self-concept. He condemned white racism as the main cause of black children's deflated self-concepts.

When Williams and Byers (1968) used the Tennessee Self-Concept Scale to assess blacks and whites in rural and urban Georgia schools, they found that the black students had low self-confidence and confused identities. They attributed these self-concepts to recently integrated schools.

Scott and McKenry (1977) noted that the strengths inherent in black families are not reported in the research. "Seldom is one confronted with research evidence of obvious Black (sic) strengths that yield positive, healthy self-concepts in most Black adolescents."

Being a member of a denigrated minority must affect the self-concept of those who recognize their status (Lefrancois, 1981). In the case of blacks, the civil rights movement may be hypothesized to offer a counteravailing force to the racial prejudice of traditional America.

When differences appear between self-concepts of blacks and whites, as groups, it is appealing to attribute the disparity to race. Socioeconomic differences between the groups are an equally logical explanation. There is likely to be greater variation within groups than between them so that attribution of a causality is difficult.

Whatever the cause of low self-concept in certain adolescents, it seems clear that self-esteem must be enhanced if behaviors are to change. How quickly and by what mechanism such changes can be brought about is open to speculation. Jones, Steffire and Stewart (1970) recommended that counselors facilitate self-awareness and encourage the mobilization of the adolescent's resources. If adolescent apathy and aloofness result from their subordinate position in society as Lyell (1973) has suggested, then society must be modified in ways to allow adolescents more responsibility. The peer groups must be taken into account and student interaction enhanced. The adolescent must be an active participant in the social context (Hayes, 1982).

The adolescent girl requires special help because our culture has not traditionally given her real options. School must give girls a realistic awareness of alternatives (Dellas and Gaier, 1975). The schools must work with parents and teachers and children if self-concepts are to be enhanced (Hansen and Maynard, 1973). Specific recommendations for the enhancement of self-concept of pregnant adolescents are offered in Chapter 5.

Vocational Awareness

The relationship between self-concept and vocation is two-fold. One's self-concept influences the vocational areas to which one directs one's efforts. Conversely, one's vocational status influences the self-concept. Both the job one holds and how one performs it can affect the self-

concept. Work is associated with adulthood and normalcy (Neff, 1968). Career choices and preparation for career were defined by Gould (1977) as one of the four developmental tasks of adolescence.

In public schools, emphasis on the preparation of non-college bound adolescents has increased (Mitnick, no date). During the school years the phenomenon that Neff (1968) termed the "work personality" is acquired - adherence to schedules, accommodation to strangers, both peers and authorities, and achievement motivation or goal-orientation.

For the pregnant adolescent, vocational awareness is of special importance. A teenage mother has the responsibility for herself and her offspring. Although societal support is available, the dependency of a non-worker has been associated with lowered self-esteem (Neff, 1968). Not only is it preferable that she do some constructive work for her own and her infant's support, but it is advisable from the standpoint of preventing future pregnancy as well. Hendrixson (1979) suggested that guidance services for vocational education needed improvement.

Holland (1973) developed a theory of vocational development. He hypothesized that individuals can be characterized by one or more personality types and that their vocational aspirations and choices should respond to the classifications to maximize success. Based on his theory, Holland devised the Self-Directed Search (SDS). The instrument is self-administered, self-scored and self-interpreted. The SDS was designed to increase counseling

services and to provide a vocational counseling experience for people who do not have access to a vocational counselor (Holland, 1979). Holland also stated that the SDS is especially useful as an outcome measure in career education (Holland, 1979).

Cutts (1977) reported the use of the SDS with high school students. Nine percent of the students obtained SDS summary codes that corresponded to their occupational aspirations. Hodgson and Cramer (1977) found that students tended not to incorporate tested aptitude scores into their self-concepts. They also noted that students are more accurate in their self-appraisal in areas with which they are experienced. This suggests the need for greater opportunities for adolescents to gain vocational experiences.

The initial section of the SDS elicits possible jobs that an adolescent has dreamed about along with her current first choice. Gottfriedson and Holland (1975) correlated the predictions of men and women who had taken the SDS at college entrance with their later occupational choices. Vocational choice was a more efficient predictor than any other component of the SDS. This finding adds importance to the adolescent need for vocational exposure and experimentation. But jobs are hard to find without skills and skills are hard to acquire without jobs.

Zener and Schnuelle (1976) assessed the effect of the SDS on high school students in Baltimore, Maryland. They found that students considered a greater number of occupations following the SDS administration than before. The use

of the SDS as a vocational counseling simulation may thus afford school counselors the opportunity for one type of vocational exposure to increase understanding.

School Attendance and Achievement

The relationship between school attendance and achievement is complicated, yet little relevant research is available. Wiley (1977) considered the amount of schooling as a variable in the study of the effect of schooling. He concluded that the amount of schooling is an important determinant of achievement. This is not surprising. It seems unlikely that a student would do well without being present for instruction in the areas on which she will be tested. The relationship is also complex in that the better she does, the greater is the likelihood that the student will enjoy school and will therefore attend more. The reverse is also true. People tend to avoid situations which are frustrating or failure-laden.

In assessing the effects of school attendance on development of skills, Jencks (1973) concluded that elementary schooling is helpful for middle-class children and crucial for lower-class children. Elementary schools were found superior to secondary schools but secondary schools are still superior to most jobs or housework in developing the skills measured on the standardized tests used to measure achievement. Jencks also pointed out the dearth of research relevant to the effect of school attendance.

What is known is that schooling affects life (Moore and Burt, 1982). And disruption in schooling is often the result for the pregnant adolescent (Menken, 1981). Limitation of education results in limited opportunity to gain skills. This has been cited as the most far-reaching consequence of teenage child-bearing (Guttmacher Institute, 1981).

Coombs and Cooley (1968) found that between one-half and two-thirds of all female dropouts cited pregnancy and/or marriage as the principal reason for leaving school. Card and Wise (1981) found that adolescent child-bearing shortened the number of years a student spent in school and the educational deficits were greater for young mothers than young fathers. The younger the parent when the birth occurred, the greater was her educational deficit.

Hansen, Stroh and Whitaker (1978) studied school achievement to identify a high risk population for primary prevention of teenage pregnancy. They found that for whites aged 12-13 years, pregnancies were more frequent in those behind or ahead of the normal achievers in school. For nonwhites of this age, only those ahead showed excessive pregnancies. For 14-15 year olds, pregnancy was most frequent for whites with above average grades and nonwhites with below average grades. For 16-17 year olds both whites and nonwhites with below average grades had excessive pregnancies. In part, these findings are contradictory to the self-esteem literature.

Two-thirds of 1.1 million teenage mothers have not finished high school, even though they may have tried to return following the birth of their babies (Guttmacher Institute, 1981). Again, the causality is ambiguous. Did the young mothers get pregnant as a more or less acceptable way of avoiding school or has the burden of parenthood forced them to leave?

Programs for Pregnant Adolescents

The following section describes national programs designed to serve the pregnant and mothering adolescent. Information was gathered directly from the agencies themselves unless citations are otherwise noted. Letters were sent by the author to all 23 Office of Adolescent Pregnancy Prevention Programs who had accepted their grants or were listed as continuing projects in December, 1982. Of these, 13 responded by sending some sort of summary of their programs. Programs reported in the literature were also contacted for information. Although all programs received the same request for information about service delivery and results, the quality and scope of information received differed widely. It is interesting to note that those programs which appeared to be the most successful or the most innovative tended to supply the most information.

Programs are grouped for presentation as follows. Programs of narrower focus are presented at the outset. These include family planning programs and hospital based programs. Programs of wider service provision follow.

These multi-service programs may or may not be of the linkage type of organization. Some are single site. Others are non-urban. All programs are presented for the purpose of generating recommendations for the modification and improvement of the program offered by the NAPPS program and thereby Coronado School.

Washington (1975) summarized the advantages and disadvantages of a special school setting for pregnant adolescents.

1. Individualized instruction is facilitated by small classes
2. Intensive counseling and specialized curricula can be offered
3. Contact with the father is possible
4. Twelve-month flexible programming is facilitated

The achievement of these goals, however, depends on program personnel and administrative leadership as well as program design. Weaknesses listed by Washington (1975) were as follows.

1. Schools may be geographically inaccessible
2. Extra curricular activities may not be offered
3. Staff and curriculum may be limited
4. Educational services may be duplicated
5. Admission and transfer may leave "tell-tale" marks on permanent records

Judging from the responses in this study, the special school, in some form, is overwhelmingly favored for the pregnant adolescent. Differences among pregnant teens exist

just as among non-pregnant teens. No single plan is appropriate for all students (Jekel, 1975).

Atlanta, Georgia

In Atlanta, Georgia, pregnant students are retained in a regular school. The rationale for this model is that support of the familiar faculty and counselors is maximized as is continuity of instruction. Klein (1975) described the cooperative program of Grady Memorial Hospital and Atlanta Public Schools. Health care is provided at the hospital though prenatal examinations are held after school hours in the school infirmary by an obstetrician. A reproductive health class was introduced into the school program. Conducted daily, it attracted non-pregnant girls and ended by becoming coeducational.

The staff consists of three full-time nurses, three full-time counselors, a part-time psychologist and part-time physicians. Comprehensive care is provided for 15-16 months post-partum in the Interconceptional Care Clinic. This clinic offers counseling. Some of the counseling is done at the schools each week in response to students' requests for individual sessions.

To be successful, a regular school-based model of continuing education for pregnant teens, staff development and inservice education must be on-going and continuous. Families must be encouraged to be supportive and day care must be available (Klein, 1975).

Community Maternity Services

Community Maternity Services (CMS) began in 1971 in the 14 counties of the Catholic Diocese of Albany, New York. CMS currently operates the Maternity Center, a group residence for single pregnant women, and the Maternity Service which provides the pregnant adolescent and the adolescent mother and infant with counseling, health care monitoring and transportation.

CMS also coordinates a network of childbirth preparation, parenting skills, employment training, adoption and foster care. Psychological and social support are provided through the peer support groups, known as study circles. The Branson Family Development Center, another component of CMS, provides periodic infant monitoring. The Family Life Education Program is a preventive component. It is an education program available to schools, parent groups and parishes.

Family Planning Association of Maine

The Family Planning Association (FPA) of Maine is a county-wide program funded by OAPP. FPA serves sixteen counties through eight service programs and over thirty clinics. The FPA houses the Statewide Coalition on Adolescent Pregnancy. The Coalition funds nine demonstration projects throughout the State of Maine. All projects serve pregnant and parenting adolescents. The goals of the projects were described as prevention of repeat, unplanned

pregnancies, maternal and infant health, school completion and self-sufficiency.

Access of Central Massachusetts

ACCESS is a service for pregnant and parenting teens operated by the Family Planning Services of Central Massachusetts. Access is a linkage organization which conducts weekly teen pregnancy/parenting clinics at three sites in Worcester, Massachusetts. The Department of Public Health provides a prenatal and postnatal counselor at each of the health care sites. There is a one-to-one relationship between pregnant teen and counselor which continues for three years following the baby's birth. Group counseling is provided also. The groups are offered at the three health care sites and at geographically central locations during the prenatal and three year follow-up periods. Sixty community agencies are linked to cover a wide range of topics pertinent to successful functioning for the teen parent and her offspring. Worcester does have a School Age Mothers Program, an alternative school program for pregnant teens.

San Francisco, California

Grady (1975) described a hospital-based school program for pregnant adolescents. Hospitals were chosen to provide the sites for continuing education because they could offer a warm, homelike atmosphere to small numbers of girls in their own neighborhoods. Health care would be facilitated. A large manpower pool was available for support and role

modeling. Five hospital centers and a residential center comprise the program.

The San Francisco Unified School District provides a social worker who coordinates the program. There are two teachers at each center, as well as a half-time social worker. Remedial reading teachers, a home economics teacher, academic counselor and vocational counselor are available to all centers. The Department of Health supplies six teaching nurses. Thirty-three agencies are linked to the centers. Mini-nurseries operate at the centers. Home visits are also part of the program.

Middlebury, Vermont

The Addison County Parent/Child Center of Middlebury, Vermont, is a linkage organization providing services to pregnant and parenting adolescents up to age 22. A surprising percentage of clients are males. This may be the result of the family orientation of the program. In fiscal year 1982, 36 male partners of 53 pregnant adolescents were served. Of 192 adolescent parents served, 77 were male. Of 1,230 non-pregnant adolescents served, 590 were male.

Comprehensive services are offered through linkage agreements. Parent/Child outreach workers serve as case managers to coordinate services to the adolescent family and to oversee duplication of effort.

University of Colorado

The Young Mothers' Clinic of the University of Colorado Health Services Center was established in 1974. It is

jointly sponsored by the Adolescent Clinic, by the Department of Pediatrics, and by the Obstetrics and Gynecology Department. The goal is to establish a trusting relationship with one staff member so that continuity of care will be maximized. About 100 girls, 16 or younger are seen yearly. Assessments regarding school status and personal relationships are made at intake. Boyfriends and husbands are encouraged to participate in Lamaze training. Referrals are made as necessary to the Adolescent Clinic nutritionist or to the Obstetrical clinic social worker. A well-baby clinic follows delivery. Babies are tested periodically to assess their developmental progress through the first two years. The fathers are tested also when they are available.

Denver, Colorado

The Department of Health and Hospitals of the City and County of Denver operates two Adolescent Pregnancy clinics in neighborhood health centers. They meet one half-day each week and include an educational group. The group topics covered are nutrition, labor and delivery, characteristics of the newborn, parenting and family planning. The lead physician, Dr. R. M. Eagar, reported that the majority of the patients remain in Denver Public Schools. The specific school for pregnant girls in the Denver area was closed as of January, 1982.

Hospital Clinics

Other hospital clinics have been reported for pregnant adolescents (Idea Forum, 1979) in New York, Wisconsin, Con-

necticut and Virginia. These essentially follow the Yale-New Haven model, including individual and family counseling with a social worker and referral services. Prenatal and postnatal care and education are included. Individual programs differ in the extras they provide, such as free snacks, or transportation. In addition, differences in atmosphere will reflect the personnel providing services.

Such clinics are also in existence at local hospitals. Norfolk General Hospital and DePaul Hospital each run weekly adolescent clinic days. These clinics do not provide transportation nor snacks. They do offer support to pregnant adolescents, instruction in labor and delivery, health care and infant care and parenting.

Syracuse, New York

An early program for low income pregnant teens was the Young Mothers Educational Development Program (YMED) in Upstate New York (Osofsky and Osofsky, 1970). Sponsored by the State University of New York, Upstate Medical Center at Syracuse, the Syracuse Board of Education and the Onondaga County Department of Health, YMED was set up in Syracuse and Onondaga County in the fall of 1965.

The program was established in a school building near the Medical Center to avoid the medical and social stigmata frequently associated with teenage pregnancy and to encourage girls to maximize their health care. The portion of the school devoted to YMED contained classrooms, social

service and psychological service offices, a medical facility for examinations and prenatal observation and a nursery. This arrangement may now seem fairly ordinary, but in 1965 this combination was most innovative.

In evaluating the outcomes of the participants in YMED, Osofsky and Osofsky (1970) concluded that despite the residual problems for mothers and infants resulting from such causes as dietary inadequacy, individuals will make progress when offered services tailored to their needs. The medical, educational and social risks of teenage pregnancy can be mitigated through professional intervention.

New York State

The New York State Department of Health supports five separate projects in seven rural upstate New York Counties and one urban area in Queens. Each of the projects has a linkage organizational format.

The Clinton County Project develops a personalized health care plan for each client. Follow-up is provided approximately every three weeks, with extensive counseling of clients. In addition, a 10-hour prenatal course is given by the American Red Cross and five hours of individualized parenting instruction is conducted by the local Mental Health Association.

The Youth Opportunities Unlimited Project (YOU) in Fulton County centers around a 20-session, once-a-week series of classes provided by community agencies at the anchor agency site. The series is a cohesive, structured

avenue for provision of some core and supplemental services (nutrition, consumer education, family life education, etc.). Referrals and follow-up are made for other needed services.

The Circle Project has eight sites covering four large upstate counties. Extensive efforts have been made to increase community awareness, and formal and informal linkage agreements have been obtained from 95 community agencies. In addition, seven community advisory councils have been established to identify service gaps and make recommendations for improving project services.

The Orleans County Project gives special attention to extended family and partner involvement through one-to-one counseling, home visits, phone contacts, and attendance at prenatal classes. The recruitment of area college interns to perform some program management tasks, follow-up, and clerical work has allowed the project to expand without additional funding.

The Queens Project is based at Queens Hospital Center in Jamaica. In its Teenage Pregnancy Program wing, the project offers five medical clinics a week--three prenatal, one family planning and one combined postpartum/pediatric. Other services available on-site include prenatal education (including nutrition preparation for childbirth and infant care), evening GED classes, and counseling for the client, her partner and extended family members.

TAPCAPP serves the Southwest Bronx, New York. This linkage organization provides medical care, counseling and

parenting skills training. A unique feature of this effort is the Big Sisters component. Big Sisters are trained para-professionals supervised by a social worker. These women provide the supportive relationship required by the pregnant adolescent and which she may otherwise lack.

Baltimore, Maryland

The Johns Hopkins Center for Teenaged Parents and their Infants (JHAPP) is a multiphasic screening and multidisciplinary management approach. Five general principles underlie the program:

1. multiphasic medical, psychosocial, educational screening
2. values clarification
3. case management
4. community linkage
5. encouraging independence of young mothers

Services are provided to pregnant adolescents less than 18 years of age, young mothers and their infants up to age three, young fathers where possible and most grandmothers. There are two components to services provided. The Obstetrical component provides care during prenatal and postpartum period, ending with a four-week well-baby visit. The Follow-Up component enrolls about 50% of mothers who have delivered, and their infants, provides care at a decelerating rate until the infant is three years old. There is an emphasis on continuity of care between staff members and individual students whom they follow through out the program.

The Lawrence G. Paquin School in Baltimore, Maryland, serves between 750-900 students aged 11-22 yearly. There is a staff of fifty including two administrators, twenty-three teachers, three counselors, a registered nurse and a nurse's assistant. Students are required to take the child development and parenting course, which includes discussions about feelings and clarification of self-awareness. Health counseling and information and personal and family and career counseling expand the girls' horizons. There is an opportunity for parents to interact with their infants during the school day. This program is part of a one-credit course conducted in the on-site infant day care center. Infants enrolled may remain until the end of the school year.

The Baltimore City Public School System also provides special services for teenagers who opt to remain in their regularly assigned schools although they are pregnant. This program provides counseling after delivery. There is also service through this program for teens who are not pregnant or parents but who are at risk for other social problems.

Washington, D.C.

The Cities in Schools Adolescent Health Center coordinates medical, educational and social services at a single site in Washington, DC. Prevention and support are the major goals of the program. On-site day care is available for infants and toddlers. Health-related services include pregnancy testing, counseling and family planning counseling. Dental and VD screening are also provided. Adoption

counseling and foster care are among the social services offered. Transportation is a component of this program. Spiritual guidance and counseling are also offered as is housing assistance. Follow-up service for teen mothers continues for at least one year.

State of Delaware

The Delaware Adolescent Program, Incorporated (DAPI) describes itself as the only statewide comprehensive service program in the United States. DAPI is a comprehensive program for school-age pregnant girls, young fathers, their children and families. At each of its four sites in Delaware, DAPI provides all its services under one roof. DAPI subscribes to the separate facility concept for pregnant students. The program is located in the ground floor of a school building used for adult programs, a suburban shopping center, a former elementary school and a church community building.

Services include academic instruction, individual and group counseling, day care for children up to three and one-half years old, three meals a day to the adolescent and five meals a day to babies. Transportation is provided. Medical care for mothers and babies is available at some of the centers.

State of Illinois

Family Focus of Illinois provides support services to families with children through age three. The drop-in social center concept offers a relaxed, informal atmosphere

with regularly scheduled activities. Seven centers currently operate in the Evanston/Chicago area. Programming is designed to support expecting parents and parents of young children so that they will feel more confident in their abilities. Child care is available when parents are in the centers. Programming has been expanded to include non-pregnant but sexually active teens. This is the primary prevention focus of the program.

Linkages with area agencies make a wide range of services available. What is most noticeable about this program is the number of males who participate. Fifty percent of participants were males. Teens are included in planning the activities to be offered. Special interest groups are offered in different centers depending on the interests of the clientele. There is a teenage fathers' group, extended family project, a bartering community of services among participants to allow families to acquire services they could not otherwise afford. The Mother Visitor Program is staffed by trained community mothers who provide outreach to isolated families. They offer emotional and practical support through weekly home visits and regular phone calls. Teenage parents who have become successful community members partner with pregnant and parenting teens to provide support and modeling through the Partners Program.

Follow-up figures showed that less than five percent of the teenage mothers served have experienced a repeat

pregnancy. Teen mothers have returned to school at a rate four times the national average of twenty percent.

Rochester, Minnesota

In Rochester, Minnesota, The Mayo Adolescents Parents' Program (MAPP) is an interdisciplinary intervention model. The program consists of three major components. The Adolescent Maternity Program is designed to reduce obstetrical risk through counseling and education. A group model of support is used.

The Adolescents Parents' Guidance Clinic is the second component of MAPP. Weekly group sessions are held with a pediatric-adolescent medical specialist and a counselor.

The third component of MAPP is the Infant of the Adolescent Mother clinic. In the hospital prior to discharge, the adolescent mother is seen by a pediatric-adolescent medical specialist for one half-hour per day. The mental health counselor is also available. This Clinic operates a 24 hour a day telephone hotline. Mothers can phone a clinic physician to discuss acute medical problems.

As described by Miller and Miller (1983) the strength of MAPP lies in obstetrical care accompanied by the psychological support needed by the adolescent. Visibility is inherent in the medical staff and maintained by visits to the schools to discuss health care issues with teachers, counselors and students.

State of Minnesota

In Minneapolis Public Schools, the Pregnant Adolescent Continuing Education Center (PACE) serves junior and senior high school females aged 12-21. The center provides individualized planning and case conferences to assess any special educational needs of the student. A public health nurse provides individual consultation, prenatal instruction and health supervision. Students receive diet, exercise and nutrition training.

State of Missouri

The Morbidity and Mortality Weekly Report of the Center for Disease Control for January 18, 1980 visited four programs across the country designed to prevent adolescent pregnancy. They cited the St. Paul Maternal and Infant Project (MIC) as the most intensive and effective.

The philosophy of MIC is to decrease feelings of isolation by having girls remain in their own schools with their own friends. A comprehensive, interdisciplinary program of prenatal care is offered in the regular public school setting. This has achieved early and continuous prenatal care and minimized obstetrical complications (Berg, Taylor, Edwards, and Hakanson, 1979).

The Center for Disease Control Report also briefly described programs in San Bernardino, California, Western Massachusetts and Maryland. These involved counseling, sexuality/contraception awareness and teacher-training workshops.

State of Michigan

Sung and Rothrock (1980) described the Continuing Education Program for Young Women of Kalamazoo, Michigan.

Started in 1963 to provide day care, social and nutrition services and transportation, the school enrolls from sixty to one hundred girls aged eleven to twenty-one yearly. Eighty-four percent are single. Duration of enrollment is from one to fourteen months, with a median of seven months.

The day care component has been credited with enabling girls to remain in school. Children are included up to 6 years old within five different units organized by developmental level. Behavioral criteria are set for children to move from one level to the next. There is a four hour weekly minimum required for mothers to spend with children in the center. Babies of students attending other secondary schools in the area are accepted though priority is given to babies of Continuing Education Students.

Bureau of Indian Affairs

In the Western United States the Intermountain Inter-tribal School is a boarding school of the Bureau of Indian Affairs. A solo-parent program operated informally for two school years until 1976 when a comprehensive program was devised. Without this program, an unwed teen mother without education or marketable skills faced a nonproductive existence on a reservation. Every participant in the Solo-Parent Program is required to participate in the Solo-Parent Financial Incentive Program. Students may earn up to \$75.00 per

month for classroom attendance, work in the dormitory, proper child care and grades. Each program is individually designed and contracted for by the student, her parent and a school authority.

State of Oklahoma

In Tulsa, Oklahoma, the Margaret Hudson Program (MHP) has served over 2,000 girls since 1969. In Fall, 1981, enrollment was 80 girls with 9 more enrolled in satellite programs. The following goals were listed:

1. Intervening in the life experience of the expectant school-age parent in such a way as to assure adequate health care during the prenatal and post-partum periods for both mother and baby
2. Inhibiting the disruption of the educational, vocational, familial and social roles that usually accompany school-age pregnancy
3. Providing an alternative to the educational, social and psychological isolation which is the current pattern for those girls at home in the community during pregnancy
4. Utilizing facilities and services of the various agencies, both public and private, available in the community
5. Strengthening school-age parents in the parenting role to safeguard the healthy development of the child
6. Following the school-age parents through the initial and continuing adjustments required in meeting educational, vocational, health, and family responsibilities created by early childrearing

Enrichment activities are offered by community volunteers. Lay volunteers serve as instructors in art, sewing, knitting, music and speech. Professionals give help in counseling, nursing, and community resource program.

A one year follow-up of Margaret Hudson students by Block and Block (1980) showed good retention of information and positive behaviors. The volunteer coordinator reported only two repeat pregnancies in the first 19 months of operation.

The Margaret Hudson Program has an outreach effort. This is the Mother-to-Mother Network, funded by an OAPP grant. The purposes for this volunteer program are:

1. To provide a community-wide information and referral system for finding pregnant adolescents in need of services
2. To enrich services provided by community resources through a team effort of staff or volunteer
3. To give the community/public an opportunity to become involved in the program

This program is designed to direct services to teenage drop-out parents and their families, to provide parenting instruction and to plan, coordinate and evaluate itself. No evaluation data were provided.

Volunteer mothers from the local community help teens who are ineligible for MHP because they are not enrolled in the public school system. Volunteers make weekly visits to the young mothers and provide whatever support services may be required.

State of Washington

The Tacoma-Pierce County Health Department offers a weekly adolescent prenatal clinic. The Adolescent Pregnancy Project consists of three outreach workers who make regular

visits to approximately 250 pregnant adolescents and their families.

A teen telephone hotline operates from 3:00 p.m. to 7:00 p.m. daily. Calls are followed up within a day or two by an outreach worker.

The most interesting special feature of this program is the radio soap opera series. The series has 30 segments, each lasting 60 to 90 seconds, dealing with sexual decision-making and problems an adolescent can expect once sexual activity is initiated.

State of Oregon

The YWCA Teen Mothers Program of Salem, Oregon, is a single-site educational program offering a full-range of junior high and high school classes. In addition, health clinic is staffed by the Marion County Health Department personnel. Pregnancy testing, contraceptive counseling, routine health care for mothers and their children and well child care are among the services available to program participants.

The innovative feature of this program is the very specific contractual agreement entered into by the program and its participants. The contract provides for requirements in education, health, parenting and social service components. To join the program a teen must participate in all components or a referral is made to other resources in the community.

Contracts are re-evaluated at the end of each nine week quarter. If a student is not fulfilling her commitments, she is given a renegotiated plan and a second nine week period during which to work on it. If at the end of this time she is still not fulfilling her agreement, she is required to take a nine week time out from the program. During the first half of the time out period, she is not permitted to participate in any teen mother's activity. At the end of her time out she may reapply for admission and will be considered after new students on the waiting list.

The Day Care Center at the Teen Mothers Program accepts infants from six weeks of age to 30 months. The quality child care offered includes early detection of problems in child development and parenting.

Reading Adolescent Minds

Project RAM (Reaching Adolescent Minds) offers outreach educational services in Denver, Colorado. All participants are between 12 and 18 years of age. Over 60% of participants are male. The focus of this program was originally on males. This statistic is therefore promising. Services for parents support the emphasis on parents as primary sex educators. Project RAM is designed to provide family life education to the community to enhance interpersonal relationships and strengthen the family unit.

All presentations are made to groups only. The philosophy of RAM is that teens respond to peer pressure. Individuals may try to overcome anxiety by acting out

sexually. Only by exposing true motivations and feelings within a group can adolescents gain the confidence to change behavior.

Mott Foundation

The Charles Stewart Mott Foundation of Flint Michigan has supported a network of programs related to adolescent pregnancy since 1978. The following overview presents information on this network.

The Continuation School for Girls is sponsored by the Flint Board of Education. This alternative school offers academic coursework and social services to help pregnant students continue their educations and to increase the quality of health care. Prevention of repeat pregnancies is another goal. An infant-care laboratory is part of this program.

Cyesis is the Greek word for pregnancy. This academic program has three options: individualized coursework at the program center, special instruction for handicapped students at the county student center, or graduate equivalency classes at the vocational center. Transportation, free meals, day care and counseling are available dependent upon the student's needs.

Home Front is a project which serves out-of-school youth in an effort to help them improve their living conditions and to avoid repeat pregnancies. Health education, life skills training, counseling and child care are offered. This project is also linked with community services.

Helping Oakland's Pregnant Teenagers offers both regular and alternative school classes or a combination. Students may also enroll in independent study and/or work experience. There is vigorous outreach. Multi-disciplinary teams deliver the actual services. Participant advocates provide liaison and linkage with community agencies.

Adolescent Pregnancy Prevention and Supportive Services Program in Rochester, New York, has developed a maternal and child health team for prevention, casefinding outreach, follow-up and home visits. An infant-care center is included.

Comprehensive Adolescent Health and Education Program is a comprehensive prevention and service program for teens and their families in a low-income Mexican barrio in Corpus Christi, Texas. Social and health services are provided. Individual and peer counseling in sexuality, health and child growth and development are included. Services in the program continue after the birth of the infant.

Teenage Pregnancy Program serves native Americans at risk of pregnancy. Pregnant teens and teen parents, their families and infants are also clients. An infant care program is staffed with Indian grandmothers and young parents can enroll in educational and vocational classes. Outreach and advocacy are stressed. The establishment of a working relationship with local tribal programs and medical and social service agencies makes this a comprehensive program.

Comprehensive Adolescent Health and Education Program-

Columbia operates a Young Adult Clinic for teens who need family planning, pregnancy testing and venereal disease control. Located at Presbyterian Hospital in Washington Heights, New York, the clinic operates in the late afternoon and early evening, when teens are out of school.

To maximize use of this facility, a program was developed to enhance community understanding and cooperation. Health educators work in schools and informal settings, churches, community groups and with parents to improve communication between parents and teens. Another component of this effort is Peer Education Resource Team (PERT). This trains teenagers to provide information about the clinic to teens outside the traditional school setting.

Another effort to improve communication between parents and teens is TEATRO, a bilingual health education theater. The group uses improvisational dramatizations to provide a vehicle for self-expression and to facilitate communication among teens and parents and sharing of teen issues with the community.

Community Health Advocacy is another aspect of this project. This is an outreach effort focused on finding teens at high risk of troubled pregnancy. The advocates are bilingual and work in teams. They introduced the program through agencies and churches but now work directly with families. The information provided by the teams encompasses a wide field of interest. This was found to be one way to make themselves useful and thereby acceptable.

Parent/Infant Interaction Program (PIIP) is a school-based program in St. Louis, Missouri. It encourages high school completion and offers education and counseling toward that end. The Crib is the infant day-care facility operated by PIIP. A small fee is charged for its use so that teens can become accustomed to budgeting for child care. Care is offered on a temporary basis for infants six weeks to 20 months.

The five basic components of PIIP are recruitment, individual case management, home visitation, classroom education and peer support groups. Referrals are made for medical and social service and other needed care.

Teen Outreach offers discussion groups to non-pregnant and non-parenting adolescents. Students are required to volunteer several hours weekly at the Crib. The groups offer high school credit for discussing the problems of adolescence.

Program staff make home visits to every program participant. Postnatal groups are scheduled, but some teens find it impossible to attend. Individual case management is the solution for the alienated and isolated mother. Intensive individual attention is provided in the home setting.

PIIP also serves males. There is little participation from teen males.

A TEATRO similar to that of the Washington Heights program has been implemented to facilitate self-expression and communication.

Norfolk, Virginia

The Continuing Education Program for Pregnant Teens (CEP) operated from December, 1969 until the end of academic year 1980-1981, offering pregnant students the option of continuing instruction outside their home schools during and shortly after pregnancy. The program was initiated under Title I funding.

The first coordinator of the program, Dr. Thomas Newby, described the atmosphere surrounding the inception of the program. The girls were considered sick and the schools wanted them out. Dr. Newby estimated that there were 500 drop-outs yearly. The girls needed health care, spiritual support and a realistic view of labor and delivery. Group homebound instruction was the only way the program could begin.

There was some question whether girls would even participate. One hundred and fifty girls were served the first year and many stayed at the center until the end of the academic year.

The CEP was housed initially in five centers. Four of the centers were minimally equipped for instruction in academic areas. All space was donated. Three of the centers were housed upstairs in the community buildings of churches. The fourth was housed upstairs in the Berkley Neighborhood Center (the only elevator). A fifth center was located in the Lakewood Instructional Center, which was shared with a variety of programs for mentally and/or physically handicapped students.

At the end of the 1978-1979 academic year, the academic center located on the west side of the city was closed. The number of girls served overall by the program was not significantly affected by this change.

The academic centers were administered by paraprofessionals. These women were responsible for daily attendance records and for following up on absences, deliveries and discipline problems. A social work technician supervised the program from the School Administration building and provided crisis counseling.

A career counselor was provided on a half-time basis. She travelled from center to center to work with the girls. A public health nurse traveled to the centers to teach labor and delivery, contraception, and infant care and development on a rotating basis. Due to delivery schedules and returns to home schools, some of the students missed important information in any given academic phase.

The girls were expected to attend their academic center four days each week. The fifth day was devoted to business and homemaking instruction at the Lakewood Center. Bus tickets were provided for those students whose family income qualified them for assistance. The academic classes were taught by part-time personnel under group homebound regulations. This meant that they were hourly employees. Only the business and homemaking teachers were full-time contract teachers.

No cafeteria facilities existed at any of the academic centers. Students brought their own lunches or went to

nearby restaurants. Junk food from machines was clearly in evidence.

The Norfolk Adolescent Pregnancy Prevention and Services Project (NAPPS) is a comprehensive community-based linkage organization. At its inception in 1980, no comprehensive service organization existed in Norfolk for pregnant and parenting teens. The project was developed through the linkage of Norfolk Department of Public Health, Norfolk Division of Social Services, Norfolk Public Schools, Planned Parenthood of Tidewater, Southeastern Tidewater Opportunity Project, Norfolk Redevelopment and Housing Authority, and Norfolk State University which administered the grant.

NAPPS was awarded a basic grant for the period of one year of operation under Public Law 95-626. Funds were to have been allocated for at least two successive years. Following this three year period, fourth and fifth year funding was to have been contingent upon successful operation. Funding was seriously curtailed and has been transferred to the State of Virginia Office of Maternal and Child Health.

NAPPS goals were originally enumerated as follows:

1. To provide comprehensive community services to improve the health, educational, social, emotional and vocational functioning of pregnant adolescents and their families in the city of Norfolk
2. To provide comprehensive community services to assist in preventing initial and repeat pregnancies among adolescents
3. To provide coordination and administration of a network of community agencies involved in the delivery of comprehensive services to adolescents who are parents, at risk of pregnancy and pregnant and to increase accessibility and utilization of existing community services

4. To develop increased capability in agency staff and volunteers in recognizing and delivering services dealing with problems related to teenage pregnancy
5. To provide a single school setting with day care and meals for pregnant adolescents

Through its participant agencies, the program was to provide the following core services:

1. pregnancy testing, maternity counseling, and referral for related services
2. family planning services
3. primary and preventive health services including pre- and postnatal care
4. nutrition counseling and information
5. referral for screening and treatment of venereal disease
6. educational services in sexuality and family life education including sex education and family planning information
7. referral to appropriate educational and vocational services
8. adoption counseling and referral services
9. referral to other appropriate health services

Supplemental services are child care, consumer education and homemaking, counseling for extended family members of the eligible person and transportation. The services provided by the component agencies are listed below by the agency responsible.

Norfolk Department of Public Health

Pregnancy Testing
 Pelvic Exam
 Maternity Counseling
 Family Planning/Sex Counseling
 Referral and Treatment for VD
 WIC (Nutrition)

Financial Counseling
 Health Assessment/Teaching
 Follow-up 1 year Postpartum
 Problem Pregnancy Counseling

Planned Parenthood

Pregnancy Testing
 Pelvic Exam
 Problem Pregnancy Counseling
 Family Planning/Sex Counseling
 Referral Testing for VD
 Family Life and Sex Education

Hospital and Private Physicians

Medical Care Based on Referral
 Primary and Preventive Health Service
 Pre and Postnatal Care
 Nutrition
 Counseling

Norfolk Public Schools

Educational/Vocational Classes in Regular Class OR
 Continuing Education Center, known as Coronado School

Medical Care Referral

Postnatal Care
 Pediatric Care

Southeastern Tidewater Opportunity Project

Infant Care Center
 Demonstration of Parenting Skills

Division of Social Services

Day Care - Title XX
 Parenting Support Groups
 Financial Counseling
 Individual and Extended Family Counseling
 Advocacy
 Adoption Counseling and Placement
 Family Planning Counseling
 Referrals
 Follow-up

Norfolk Redevelopment and Housing Authority

Neighborhood Center Programs
Financial Counseling
Vocational Services
Counseling

Services were mandated to be provided by the agencies to adolescent males and females determined to be high-risk for becoming involved in adolescent pregnancies, pregnant adolescents, and adolescent parents. The existing community resources serving this population had been fragmented. No infant day care was available in the Norfolk area prior to NAPPS. The traditional problems of inadequate pre-natal care were prevalent. There was no transportation and no follow-up of these young parents.

The main focus of this dissertation is the Norfolk Public Schools component of NAPPS, the Coronado School. This consolidated instructional center has the responsibility for the continuing academic instruction of the pregnant adolescent along with some vocational training. Referrals to the Norfolk Public School Vocational Technical Center were facilitated through Coronado. There are no male students at Coronado. Coronado is a renovated former elementary school. It houses a science laboratory, daily home-making and business courses in the one-story building. Academic instruction consistent with home school curricula is offered. In some cases, a high school teacher from a nearby school has come in to teach a single student some advanced class. There are ten part-time teachers and two full-time contract teachers. The contract teachers were the

same personnel who had served this population at Lakewood Center for business and homemaking. Many of the part-time personnel were also from the CEP. The school day runs from 8:55 a.m. to 2:55 p.m.

There is a full cafeteria with federal breakfast and lunch programs available to students. This large, bright room doubles as the auditorium. (There is a curtained stage at one end.) It also serves as the gym for the daily exercise classes.

To the left of the front door is the secretary's office. Across from the secretary is the principal's office. The principal is a state-certified administrator. She formerly headed the Lakewood Center of the CEP. There was at one time a desk in front of the secretary's office allocated to the attendance worker. This position was both implemented and cut following this research.

The front hall contains two large bulletin boards which are used for students news, birth announcements and programs of interest offered by other community agencies. The front window of the secretary's office is used to post those students who have gone on homebound instruction. This is for teachers who are then to prepare work for the itinerant teacher to take to the students. The daily attendance sheets where students are supposed to check themselves in daily are also found in this area.

Behind the offices is the day care center. Operated by the Southeastern Tidewater Opportunity Project (STOP) there is space for up to 16 babies. Students may enroll

their infants on a first come first serve basis. Underutilization is common. Infants may attend only as long as their mothers are at Coronado.

The school is divided down the center by a main hall. Classrooms, a custodian's office and a teacher's lounge line the hall. In the center of the main hall on the left is the health suite. There are private offices for each of the three public health nurses who were at Coronado at the time of this research. There is also a small area to the front of the health suite with a bed for students who need to rest. A full-time counselor replaced the half-time itinerant counselor of CEP. Her private office is also along the main hall.

Portsmouth, Virginia

From 1968 until June, 1981, the Division of Special Education of the Portsmouth Public Schools operated a Continuing Education Program for Pregnant Teens. The single site offered academic instruction four days a week. Home economics and health and nutrition were given one day a week and attendance was mandatory. Public health information was provided by a nurse from the Family Planning Clinic who was at the school one hour each week. Counseling was provided by the home economics teacher and so was available only once a week. Sex education was limited as the PTA felt that sex education was not a school role.

A health history was required for entrance into the program. This form, from the Division of Special Education,

described the disability as pregnancy. A notice of rules and regulations had to be signed by the student and a parent or guardian. The notice was to be returned to the school to be kept on file. One 6th grader in this sample was sent back to her home school due to disruptive behavior and excessive absence.

At the time of the study, the program was housed on the second floor of S. H. Clark School. Students occupied about four rooms and used stairways to get to their classes. There was a cafeteria facility on the ground floor.

When interviewed in 1981, the Director of Special Education noted a trend within the previous five years for pregnant students to remain in their home schools in Portsmouth. In June, 1981, this program was deleted due to budgetary limitations.

Richmond, Virginia

The program offered by Richmond Public Schools to its pregnant teens is a centralized facility, the Park School. Only once in its history has the program had its own building. The current site is its seventh. The aging building is shared with the Parent Education Resource Center and the Diagnostic Prescriptive Center. Because of its location in a high crime area, only one entrance is used, and that is located in the back of the building, through the parking lot.

Child development classes, homemaking and business are located at Park School. A counselor is present three days a week and offers family life education. A Public Health

nurse is present two days each week for a total of five hours. Family Services of Richmond comes to the school on special occasions for counseling, outreach and job information.

The academic program includes communicative arts (English and Reading), mathematics, science, social studies, business education and family living. Physical education and health education are offered including a modified lamaze training. Some foreign language is offered. Music has replaced child care in the curriculum. An academic counselor, a former social worker, was at the school. Lab sciences and certain business education courses are not offered.

Team teaching, individual and group instruction and independent study are all used to present the academic program. Academic classes begin at 7:55 a.m. and end at 1:55 p.m. Clubs and assemblies continue to 2:45 p.m. The school has a student government association. At the January, 1982, meeting the girls were preparing the fourth community service project of that academic year.

When interviewed in January, 1982, the head teacher, who directs the school, stated that she was preparing a grant application for on-site infant day care. The purpose of that program would be to alleviate babysitting problems, complement the family living class, and train girls for child care work. A local day care center across the street was then available for 3-5 year olds. Although the head

teacher was later contacted to ascertain the outcome of this project, no reply has yet been forthcoming.

Absenteeism was cited as a major problem. The head teacher stated that girls would appear on the 14th day (one day before the state requires that a student be dropped from the roll for unexcused absence) simply to maintain their welfare status.

Concerns voiced by the head teacher included the limited amount of parent participation and the discipline problems at the school. One activity to which grandparents came out is Father's Day. Once a year, the school is opened to families and babies for a general socializing, show-off-the-baby event. Awards day is held the last school day of the year. Girls may receive academic awards and a parent-hood certificate from the Red Cross if they have attended or completed the course offered.

Pregnant students in Richmond are not required to attend Park School although counselors do encourage girls to go to Park. Yearly all secondary counselors are invited to come to Park. This is designed to disseminate accurate information and to dispel any myths that the school is a "hole in the wall" operation.

According to the head teacher, there are as many pregnant girls who elect to stay in their regularly assigned schools as who elect to come to Park. She suggested that this was because of its location, because the girls had to take a city bus instead of the yellow school bus. "The girls don't want to be different."

A potentially determinant variable which differentiates Park School from the other programs described is the length of stay at the school. Girls are not required to stay the full academic year of their enrollment, but they are strongly urged to do so. This is designed to maintain consistency in their care and to assure that they are exposed to all components of the nucleus course in family living. This course offers self-realization training, career education, consumer education, human sexuality, child bearing, child rearing, personal and family health, nutrition and birth control. The responsibilities of single motherhood are stressed. Child growth and development are covered. Students almost universally stay the remainder of the year in which they enroll.

Summary

This chapter has systemized the extensive body of literature relevant to this dissertation. Evaluation research literature was surveyed in order to explain the evaluation design used. Characteristics of adolescents in general were studied, as was the etiology of adolescent pregnancy, in order to provide an understanding of the subjects interviewed and tested in this evaluation. The school-related measures used were described. Finally, a variety of national programs for pregnant adolescents as well as those observed in this dissertation were presented.

This survey of literature is intended to provide a theoretical framework for this dissertation as well as for the recommendations it offers.

CHAPTER 3

RESEARCH METHODOLOGY AND PROCEDURES

Introduction

The evaluation methodology adopted for this study was that of Fitz-Gibbon and Morris. Fitz-Gibbon and Morris (1978) stated that "the best and most decision relevant test of a program is to compare it to a competing program which might be adopted." This paradigm is also consonant with the utilization-focused approach of Patton (1978). Close coordination with the decisionmakers responsible for program implementation and control has characterized this dissertation.

As the Norfolk Public School System was reorganizing the Continuing Education Program for Pregnant Teens, the Norfolk School Board was concerned about the effect of the change in format on the students served. This evaluation study compared various forms of organization of such programs offered to pregnant teens in comparable communities statewide. The results of this comparison generated recommendations to Norfolk School policy decisionmakers responsible for program implementation and control.

Patton and others (e.g., Cronbach, et al., 1980) stressed the pragmatic aspect of evaluation over the theoretical. That is, the evaluation design should reflect a structure which will provide useful information to policy-makers. The active-reactive-adaptive role for the evaluator working in conjunction with program decisionmakers in conceptualizing the evaluation and making measurement and design decisions was adopted in the implementation of this evaluation.

Methodology

The Setting

The four programs selected served basically comparable populations of school-aged pregnant teenagers. Table 9 shows the number of girls in each of the four test groups: Norfolk CEP, Portsmouth CEP, Richmond and Coronado. The Norfolk CEP served 30% of subjects studied. The Portsmouth CEP and Richmond each served 14% of the girls studied. The largest group (42%) was at the Coronado location.

TABLE 9

PERCENTAGE DISTRIBUTION OF SUBJECTS BY PROGRAM
(with numbers in parentheses)

	Norfolk CEP	Portsmouth CEP	Richmond	Coronado
Shiloh	38(15)			
Berkley	30(11)			
Third	32(12)			
N	30(38)	14(18)	14(17)	42(52)

Norfolk Continuing Education Program

Beginning in 1970, Norfolk Public Schools offered pregnant students the option of continuing instruction outside their home schools during and shortly after pregnancy. The Continuing Education Program for Pregnant Teens (CEP) was initiated under Title I funding.

The CEP was initially housed in five centers. Four of the centers were minimally equipped for instruction in academic areas. All space was donated. Three of the centers were housed on the second story of local churches; the fourth on the second story of the Berkley Neighborhood Center. A fifth center was used for business and homemaking instruction. This was located in the Lakewood Instructional Center. The centers' staffs were comprised of part-time, non-contract teachers who traveled from center to center. The centers were administered by paraprofessionals who also provided crisis counseling.

The transition from Norfolk CEP to Coronado began in April, 1981. The Shiloh and Berkley Centers were the first to be closed down. The Third Center operated until the end of that year. In the fall of 1981 all pregnant teens in Norfolk were assigned to Coronado.

Coronado School

The Norfolk Adolescent Pregnancy Prevention and Services Project (NAPPS) is a comprehensive community-based linkage approach to service delivery for the pregnant adolescent. This project was developed through a linkage of

community agencies: Norfolk State University, Norfolk Department of Public Health, Norfolk Division of Social Services, Norfolk Public Schools, the Southeastern Tidewater Opportunity Project (STOP), Planned Parenthood of Tidewater, and Norfolk Redevelopment and Housing Authority (NRHA).

Norfolk State University (NSU) provides no direct service to clients of NAPPS. The role of NSU is that of coordinator. At the Coronado site, there is direct and open communication between Norfolk Public Schools, STOP and the Public Health nurses. The nurses act as case managers for girls enrolled at Coronado and all services provided to the clients are to be reported to the girl's manager. It is possible for a girl to enter NAPPS through another involved agency, such as Planned Parenthood or Norfolk Social Services, in which case the intake records for that client are held at the agency. Males also enter through NRHA as do some females and the intake records are held there. This means that the quality of records kept depend on the personnel of the separate agencies.

Referral from one agency to another is made by telephone or letter contact. At the time of this study, the linkage between agencies was very much in the formative stage.

At Coronado, programs of physical education and academic instruction are consistent with home school curricula. Coronado houses a science laboratory and offers daily home-making and business classes in the building. Prenatal instruction is included in the health curriculum. Federal

breakfast and lunch programs are available for pregnant students in Norfolk who leave their regularly assigned schools. Data from the food service department is useful as a reflection of the socioeconomic status of the students at Coronado. Table 10 shows the most recent quarter for which data on those eligible for free or reduced lunch were available.

TABLE 10

FREE LUNCH PROFILE OF CORONADO STUDENTS	
Applications for free or reduced price lunch	95
Number of free lunches	91
Number of reduced price lunches	<u>3</u>
	94
Total enrollment as of September 28, 1981	110

Of the 110 students enrolled at Coronado, 95 applied for free or reduced price lunches. 96.8% of the students who applied qualified. 3.2% qualified for reduced lunch. According to the secretary at Coronado who handles these records, these figures are comparable to those of other groups attending Coronado. It is assumed that students in this study have similar family income backgrounds.

A comparison between Norfolk CEP and Coronado is the central focus of this dissertation. The programs differed in the decentralized as opposed to centralized format. In addition, the physical plant at the centralized Coronado location was more spacious and diversified than the decen-

tralized CEP sites with the addition of the Infant Day Care and Public Health nurses, as well as business and homemaking courses.

Personnel changes were minimal at the inception of the Coronado program. Teachers from the CEP came to Coronado for the most part. The paraprofessional who had supervised the Third Center became the secretary at Coronado. The former principal of the Lakewood Instructional Center, which had housed the business and homemaking classes for CEP, became the principal of Coronado. In the Public Health component, the itinerant nurse became the supervisor of the three on-site nurse educators. A full-time counselor at Coronado replaced the half-time counselor of CEP.

In the Norfolk CEP, the one itinerant Public Health nurse assigned to the centers had to rotate the courses in the curriculum. This meant that a girl could enter and leave the program without being exposed to the full range of topics offered. At Coronado, three nurses on-site offer the full range of health-related topics each phase so that each girl has the opportunity to learn prenatal care, postnatal care, labor and delivery and contraception.

Portsmouth

Until June, 1981, the Division of Special Education of the Portsmouth Public Schools operated a continuing education program for pregnant teens. The single site location offered academics, home economics, health and nutrition and informal career counseling. The program was discontinued at

the end of the 1980-1981 academic year due to budgetary limitations.

Richmond

Park School in Richmond, Virginia, offers continuing education for pregnant teens in a centralized location. Academic instruction is complemented by physical education, health education, family living, and business education. This program differs from the others in the study in its enrollment procedure. Girls are strongly encouraged to remain at Park School for the duration of the academic year in which they enter. Most girls follow this procedure.

Evaluation Approach

The purpose of the comparison made in this study was to evaluate various forms of continuing education for pregnant teenagers. Four groups were selected because of the demographic similarities of their populations. A multiple regression model was chosen using program as an independent variable. Other independent variables chosen were length of time in program, and age of student. By comparing regression equations for each of the predicted variables, it should be possible to ascertain which of the independent variables, or which in combination, have a significant effect on the dependent variable in question. A control group of pregnant teens who remained in their home schools was considered. Substantial effort was made to locate such students and solicit their cooperation. The Director of Guidance for Norfolk Public Schools announced at least

twice at Junior and Senior High School counselors' meetings that students who were pregnant and remaining in their home schools were being sought. Personal contact was made with the principals of the high schools by the researcher with the same request. It is not surprising that girls who chose not to single themselves out by transferring to a special school were unwilling to be interviewed or tested. Only one girl was found who was willing to identify herself and talk with the researcher.

Variables

The following section defines the variables on which information was collected for the evaluation. The independent variables are type of program, length of time in program, and age of student. These were selected as measurable, observable components of the education of pregnant teens. It was hypothesized that they would impact individually or in combination on the outcome measures of the pregnant adolescent.

Independent Variables

Type of Program. Inclusion in one of the four school programs described above constitutes an independent variable.

Length of Time in Program. The length of time which a student has been exposed to the program in which she is enrolled constitutes an independent variable.

Age of Student. This is the chronological age of the student at the time of testing or interview.

Table 11 presents information on the distribution of the girls interviewed and/or tested by age. Most of the girls fell into the age range 15-18. The 13 year olds were the youngest in the study. One 20 year old is included. Although her chronological age is beyond the teen years, her inclusion in the school program qualifies her as a subject in the study, and makes her inclusion appropriate.

Although race might have been an interesting variable from a research point of view, the enrollment of all educational programs was overwhelmingly black. It was questionable whether enough white students were available for a valid regression analysis. For this reason, race was not included as an independent variable.

TABLE 11

DISTRIBUTION OF SUBJECTS BY AGE

Age in Years	Number	Percent
13	3	2
14	5	4
15	19	15
16	26	21
17	31	25
18	29	23
19	10	8
20	<u>1</u>	1
	124*	

NOTE: Mean = 16.685, Mode = 17.

*One unknown

Table 12 provides the race of the girls studied by the program which they attended. With the exception of the third center of the Norfolk CEP, a majority of the girls in each center were nonwhite.

TABLE 12

PERCENTAGE DISTRIBUTION OF SUBJECTS BY RACE AND PROGRAM
(with numbers in parentheses)

Program	Race	
	White	Nonwhite
CEP		
Shiloh	0 (0)	100 (14)
Berkley	0 (0)	100 (11)
Third	50 (6)	50 (6)
Coronado	17 (9)	83 (43)
Portsmouth	11 (2)	89 (16)
Richmond	17 ()	83 ()

Dependent Variables

The dependent variables are self-concept, vocational awareness, attendance, achievement, and return to school. Self-concept is an important personality component and it is of central importance in influencing behavior. Enhancing the self-concept of the pregnant adolescent should contribute to positive outcomes for her infant as well as for the adolescent personality. Academic achievement and school attendance may be considered to contribute to and to reflect self-concept. They are included here to assess the effectiveness of differing forms of program organization because they are standard measures of school effectiveness.

For the pregnant adolescent who may be solely responsible for herself and her infant, vocational awareness is

another area which should be explored and facilitated by any program of education for pregnant teenagers.

Self-Concept. The score of each respondent on the Piers-Harris Children's Self-Concept Scale is a dependent variable measured. The score was arrived at by computer scoring of the 80 item scale. The Piers-Harris Children's Self-Concept Scale yields seven different scores. In addition to the total score, six factor or cluster scores were computed. These are behavior, intellectual and school status, physical appearance and attributes, anxiety, popularity and happiness and satisfaction. These factor scores were computed for all respondents.

Vocational Awareness. The Holland Self-Directed Search was administered to each girl in order to assess the effectiveness of the vocational counseling provided by each program. Students list job preferences and these are compared to the results of the questionnaire. The agreement between jobs listed and the results of the questionnaire is a dependent variable measured.

Attendance. The rate of attendance during the school session prior to testing is a dependent variable measured. The rate is computed as a percentage by dividing the number of days present by the number of days making up that school period. It is crucial to recognize that the data for the number of days present were supplied by the program's secretarial staffs or directors. If the data supplied by the program are inaccurate, the rate of attendance measure will be biased.

Achievement. The academic achievement of respondents for the grading period prior to testing is a dependent variable measured. Academic achievement was measured by grades at the end of the grading period. Letter grades were converted to numerical grades on a four-point scale. Again, the accuracy of recording by the schools themselves will affect the results of this dependent variable. Extraneous variables that impact grades, such as teacher performance, cannot be controlled.

Return to School. The rate of return to school is a dependent variable measured. Students pre-tested in Norfolk and Portsmouth were followed up at the beginning of the academic year following the testing. Students in the Richmond group were followed up at the beginning of the academic year following the one in which they were enrolled at Park. These times were chosen because they were the next logical times for students to return to their regularly assigned schools. Students at Coronado were followed up at the beginning of the second grading period after they had been tested at Coronado. This was done to allow those students who remained an extra school session to return to their home schools. In all programs, students who had graduated were included in the returned to school group as graduation is a positive outcome of the school program.

Research Questions

Based on a consideration of the four programs described above, the following summative question has directed

this dissertation research: What effect do differing programs of continuing education have on pregnant teens who choose to leave their regular school settings?

Consonant with the goals of NAPPS and the responsibilities of Norfolk Public Schools, five research questions are appropriate:

1. How do self-concepts of pregnant teens enrolled in differing programs of continuing education compare?
2. How does the vocational awareness of pregnant teens enrolled in differing programs of continuing education compare?
3. How does the attendance of pregnant teens enrolled in differing programs of continuing education compare?
4. How do the academic achievement records of pregnant teens enrolled in differing programs of continuing education compare?
5. How does the rate of return to school of pregnant teens enrolled in differing programs of continuing education compare?

Hypotheses

This study tests the following null hypotheses:

1. There is no difference in the self-concepts of pregnant teens enrolled in the Coronado School, Norfolk CEP, Portsmouth CEP and the Park School
2. There is no difference in the vocational awareness of pregnant teens enrolled in the Coronado, Norfolk CEP, Portsmouth CEP and the Park School
3. There is no difference in the attendance records of pregnant teens enrolled in the Coronado School, Norfolk CEP, Portsmouth CEP, and the Park School
4. There is no difference in the academic achievement records of pregnant teens enrolled in the Coronado School, Norfolk CEP, Portsmouth CEP, and the Park School

5. There is no difference in the rates of return to school of pregnant teens enrolled in the Coronado School, Norfolk CEP, Portsmouth CEP, and the Park School

Instruments

The following sources were used in the gathering of quantitative data: Attendance, academic achievement, and return to school data were gathered from school records; the Piers-Harris and Holland Scales were administered to subjects by the researcher.

Piers-Harris Children's Self-Concept Scale

The Piers-Harris Children's Self-Concept Scale is subtitled "The Way I Feel About Myself." It is an 80 item, self-administered instrument for children grades four through 12. It is in regular use in Norfolk Public Schools. The scale was designed primarily for research on the development of children's self-attitudes according to the Professional Manual.

Reliability data provided by the manual concern internal consistency and stability. The authors reported Kuder-Richardson Formula 21 coefficients between .78 and .90 for girls from grades 3, 6, and 10. The Spearman-Brown, odd-even formula was applied for half the grades 6 and 10 samples. Resulting coefficients were .90 and .87, respectively. Four month retests on half the standardization sample yielded coefficients of .72, .71, and .72. These scores are acceptably high to indicate a useful tool.

Holland Self-Directed Search

The Professional Manual (1979) of the Self-Directed Search (SDS) describes the SDS as a self-administered, self-scored, and self-interpreted vocational counseling tool. The SDS is comprised of an assessment booklet which is completed by the student and an occupational classification booklet.

The SDS is based on John L. Holland's theory of personality types. The assessment booklet begins with a section which asks the student to list the jobs that she has dreamed about having, listing the most recent first and a dream from the distant past last. The assessment section has the student respond by marking yes or no to activities she likes, competencies she has, and jobs she is interested in. The SDS concludes with a section for rating one's abilities in the six areas which correspond to the personality types - realistic, investigative, artistic, social, enterprising and conventional.

The SDS was developed to multiply the number of people served by a counselor and to provide counseling experience for those who complete it. It was selected for the present research to assess systematically the awareness of the pregnant teens of their vocational potential and possibilities. Participation in the study afforded the girls a useful career counseling experience and provided an assessment tool for the effectiveness of the vocational counseling offered by the programs.

The research uses of the SDS have been varied. Cutts (1977) found agreement between initial career choices and SDS codes to be 9 percent for high school students. As recommended in the manual, this measure can be used to assess career education. Holland reported that the SDS scales have a moderate degree of internal consistency. That is, scores in each of the six areas--realistic, investigative, artistic, social, enterprising, and conventional--remain relatively stable when the SDS is readministered. Retest reliabilities for a high school sample containing 57 girls ranged from .44 for the social category to .78 for the artistic with a median of .64 for the overall test.

The student scores the SDS by counting yes and no answers and recording them. The high scoring areas are used to generate a summary code which the student then uses to enter the Jobs Finder booklet.

This study used Form Easy (E) which was developed for adolescents and adults with limited reading skills. This selection was made to assure that possible needs of all students would be met. Form E has 203 items, slightly fewer than the regular form which has 228. The directions to Form E include only words known by 80 to 100 percent of the fourth-graders in the United States. The scoring results in a two- rather than three-letter code.

Data Collection Procedures

The following section describes the general data collection procedures used in this dissertation. The gathering

of quantitative data is presented first. Qualitative data gathering is then described.

Quantitative Data Gathering

All testing was supervised by the author personally. Considerable effort was made to see that testing dates were synchronized to control for history and maturity as well as environmental factors. No testing was scheduled on Monday or Friday because of the increased likelihood of student absences. All testing was scheduled in the middle of the morning when the girls could be expected to be most alert and responsive.

Whenever possible, the program leader with whom the students were most familiar introduced the researcher personally to them. The counselor served this function at Shiloh center rather than the center manager because the manager was particularly uncooperative with the research. She tried several times to block the testing sessions. Both the counselor and the social work technician, who was the immediate superior to the center manager, were present at Shiloh. Both made it clear that they were in favor of the research. Even then, the manager entered the room where the girls were being tested and said to the group in a loud voice, "You don't have to answer any questions." She then left.

The room at Shiloh was crowded with girls but each student had a seat and an appropriate work space. Other

conditions seemed to be as usual. The girls appeared comfortable and responsive.

At Berkley, the center manager was also fairly argumentative at the outset. The researcher spent an hour or so with her explaining the study and its intentions prior to scheduling the testing. After this session, the manager seemed satisfied and was entirely cooperative. Testing conditions at Berkley appeared to approximate normal school conditions. The room used was a regular classroom ordinarily used by the program, as at Shiloh. It had ample space and seating for all students. Here, too, the girls were friendly and responsive, the atmosphere relaxed.

It is important to remember that at the time of this testing, these center managers were about to lose their jobs. They were paraprofessionals who had held these positions for the entire duration of the program. They had status in their communities which they would be unlikely to find in any other jobs which they could find. Each of these women seemed to be sincerely committed to the welfare of their students, at least in their own minds. Both appeared to fear that the research would reflect negatively upon themselves.

Third Center was managed by the woman who is presently the secretary at Coronado. There were no obstructions to the testing at Third. The Manager was entirely cooperative. She had a pleasant demeanor with the girls and the session went smoothly. Here, as at the other centers, the counselor introduced the researcher and helped supervise the testing

session. The room was a regularly used classroom with adequate seating and desk space for each student.

Testing in Portsmouth was uneventful. The Director of Special Education for Portsmouth City Schools escorted the researcher to the program site and introduced her to the head teacher. Testing was conducted in a regular classroom used by the program. The head teacher stayed in the back of the room working quietly at her desk. The girls appeared comfortable and cooperative.

Testing in Richmond took place later than in any other program because of scheduling difficulties. The head teacher seemed most reluctant to allow the researcher into her program. It was necessary to work through her superiors in the administration to get cooperation. Upon arrival in Richmond, however the researcher found the head teacher to be fully cooperative and, in fact, more than cooperative. She reorganized the day so that testing could take place in the morning and her introduction of the researcher to the girls was warm and supportive.

Students in all groups were told that all answers would be kept completely confidential. The purpose of the research was explained as gathering information to understand programs for pregnant teenagers better in an effort to help girls like themselves. When asked, the researcher stated that it was not required that any girl complete the testing. No mention was made of intergroup comparisons.

On March 18, 1981, and March 24, 1981, testing was completed in the three Norfolk Centers: Shiloh, Berkley and

Third. A total of 33 girls completed the Piers-Harris. Thirty-five girls completed the SDS. These dates were selected because they fell at the end of the final quarter of regular operation of the decentralized centers. The final quarter of that academic year was a patchwork of programs. Two of the three centers remained open to finish out the year. All new students were assigned to Coronado and the group of girls at the Third Center was sent to Coronado as well.

On April 29, 1981, testing was conducted in Portsmouth. Eighteen girls completed the Piers-Harris Self-Concept Scale. The same students completed the SDS. This was the date closest to the testing date in Norfolk which was available. The attempt to test as close to simultaneously as possible was an effort to control for the intervening variables of history or maturation as an explanation of any differences between groups.

On October 30, 1981, 39 girls completed the Piers-Harris Self-Concept Scale at the Coronado School. On November 4, 1981, 38 girls completed the SDS at Coronado. These dates were selected because they came at the end of the first quarter of regular operation of the Coronado School.

All girls included in each group, whether they completed both instruments or not, were included in the groups to be assessed on attendance and achievement and return to school.

On January 6, 1982, 17 girls at the Park School completed the Piers-Harris Self-Concept Scale and the Holland

SDS. This was the date closest to the others on which testing could be arranged.

Both the Piers-Harris Self-Concept and the SDS were administered in groups. Protocols of either completed under duress could not be considered valid. Incomplete protocols which could not be completed without applying pressure were therefore discarded as invalid.

Administration and scoring instructions for the Piers-Harris Self-Concept Scale recommend that the examiner read each item clearly, twice, for grade six and below. Although no student was below grade six, the researcher read the instructions aloud and began each session by reading items to assess the level of the girls taking the scale.

In Berkley and Third Centers in Norfolk, and in Portsmouth and Richmond, the girls requested that oral reading be discontinued and this was done. In Shiloh Center and at Coronado, it was necessary to read the items to one girl and in each case a teacher with whom the student was familiar was on hand to assist by doing the reading.

No particular reading difficulties were noted in any administration of the SDS. Students were allowed to proceed at their own rates of speed and no time limits were imposed. There was considerable confusion on the abilities rating section. A second visit to Shiloh and to Third Centers was required to clarify the procedure for completing this section. Very few scoring errors were made by participants who completed the SDS. There were some students who did not return to complete the correction process. This was con-

sidered to be lack of interest and the responses were discarded as incomplete. As noted in the manual, the instrument is only considered to be valid for those individuals who want the information it supplies.

Qualitative Data Gathering

In addition to the quantitative data gathered, qualitative data were collected. Interviews were conducted in person by the researcher with persons having different perspectives on the Norfolk Public Schools programs. Former and present staff, faculty and administrators of the programs were interviewed. Local health professionals who have worked indirectly with program staff and participants were interviewed. Table 13 shows the number and types of interviews conducted.

Program participants and their families were contacted. All students interviewed prior to delivery were also interviewed after delivery. For the most part individuals were eager to talk about the program and its services. Most interviews were conducted in the homes of participants in person by the researcher. This procedure was followed for two reasons. The researcher felt that a participant might be unwilling to offer any negative comments if she might be overheard by a teacher or staff member. Further, home visits gave depth to the understanding of participants and their personal life situations which was felt to help in interpreting the data gathered. The importance of background and context cannot be overestimated in qualitative

research. All visits were scheduled by phone, at the convenience of the interviewee. The researcher called to confirm each visit at a short interval prior to the appointment. Direct quotations and thematic results of the qualitative data gathering process are presented in Chapter 4 along with the results and analysis of the quantitative data gathering.

TABLE 13

DISTRIBUTION OF INTERVIEWS

Person Interviewed	Number
Students in CEP and Coronado	30
Husband of student	1
Parents of student	(Mothers) 15 (Fathers) 2
Program staff	All teachers All NAPPS staff All former center managers
Staff of Norfolk Public Schools	2 junior/senior counselors 2 principals 6 teachers
Community	4 NGH teen clinic 3 DePaul teen clinic 1 NGH physician

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

Introduction

In order to generate recommendations to the Norfolk School Board on the organizational format of the education program for pregnant teens in Norfolk, Virginia, this study was designed to test five null hypotheses. The quantitative data gathered are used to support or reject each of these hypotheses. The .05 level of significance is used to accept or reject each hypothesis. A note is made whenever this level of significance is equaled or exceeded.

A study such as this one, which compares different programs to determine their effect, must control for factors extraneous to the program so that alternative explanations for change are eliminated. One way of doing this is to employ a control group as in the original research design for this dissertation. The deletion of the Portsmouth control group made this an impossibility.

The alternative chosen was a multiple regression analysis, using type of program, length of time in program and age of student as independent variables. Multiple re-

gression analysis assumes linear relationships. The scattergrams produced by the quantitative data in this study gave clear evidence of nonlinear data. Multiple regression analysis was therefore an unacceptable technique for analysis.

Consequently, analyses of variance for race and age were conducted to determine if the school programs were comparable. The four groups were found not to be significantly different at the .05 level of significance for race and age. Participants in the different programs were similar.

The groups do differ on length of time in the program as shown by school records. That is to be expected due to the unusual policy of the Richmond program which is to enroll its girls for the entire year. This difference in time in program emerged because students in Richmond were tested later in the academic year than the other groups. This may be seen as a benefit rather than a defect because it is this very difference which is being investigated.

The first section of this chapter reports the quantitative data and their analyses. Each hypothesis is reported in succession. The second section of the chapter reports the qualitative data gathered.

Quantitative Data

Hypothesis One

Self-concept is widely viewed in the literature as a central determinant of social and emotional behaviors. It

may vary with age or race or education. The present analysis addresses the first research question directing this evaluation: Are the self-concepts of pregnant teenagers enrolled in various programs of continuing education significantly different from one another?

The Piers-Harris Children's Self-Concept Scale was used in the evaluation to assess student self-concept. This research instrument provides both a global or total self-concept score as well as six cluster or factor scores. Information on various facets of these scores is provided in this section. Further, analyses of the relationship between the self-concepts of students and their race and their attendance are presented.

There is no difference in the self-concepts of pregnant teens enrolled in Coronado School, Norfolk CEP, Portsmouth CEP, and the Park School. This null hypothesis was rejected. Table 14 presents the analysis of variance which supports this rejection.

TABLE 14

ANALYSIS OF VARIANCE OF SELF-CONCEPT BY
TYPE OF PROGRAM

Source	Sum of Squares	DF	Mean Squares	F	Sig.
Main Effects					
Type of Program	858.416	3	286.139	2.861	.041
Residual	1021.745	102	100.017		
Total	11060.160	105	105.335		

NOTE: $\text{Eta}^2 = .078$.

As shown in Table 14, the F-value of 2.861 is significant at .04 level of significance. This indicates that there is a difference in mean self-concepts among the four groups which is not expected to occur by chance more than four times out of 100.

The Eta^2 statistic describes the variance in the dependent variable accounted for by the independent variable. That is, almost eight percent of the self-concept can be explained by the type of program in which a pregnant teen is enrolled.

Table 15 shows the magnitude and direction of the deviations in mean self-concept by group. The Norfolk decentralized program is the only group to have mean self-concept above the grand mean of 58.56. The Norfolk CEP mean self-concept was 62.75. The mean self-concept of the Portsmouth group was the lowest at 55.78. At Coronado the mean self-concept of 57.54 was 1.02 points below the grand mean. The Norfolk CEP group scored 5.21 points higher than the Coronado group, a difference of eight percent.

TABLE 15

DEVIATIONS IN SELF-CONCEPT BY TYPE OF PROGRAM		
Program	N	Deviation from Grand Mean
Norfolk CEP	32	+4.19
Portsmouth	18	-2.78
Richmond	17	-2.62
Coronado	39	-1.02

NOTE: Grand Mean = 58.56.

This difference is put into perspective by the Instructors' Manual for the Piers-Harris. Users are admonished to ignore differences of less than 10 points.

Because of the central importance of self-concept, analyses of variance of self-concept by race, age, length of time in program and grade were conducted. Table 16 provides the analysis of variance of self-concept by race. Five percent of self-concept is accounted for by race as shown by the Eta^2 statistic.

TABLE 16

ANALYSIS OF VARIANCE OF SELF-CONCEPT BY RACE					
Source of Variation	SS	DF	MS	F	P
Main Effect Race	513.900	1	513.900	5.068	.026
Residual	10546.261	104	101.406		
Total	11060.160	105	105.335		

NOTE: $\text{Eta}^2 = .046$.

There is a significant difference between the self-concepts of white and non-white pregnant teens. Table 17 illustrates this point. In this study, mean self-concept for nonwhites was 59.45. For whites, mean self-concept was 53.14, a difference of 11 percent. Again, this difference falls below the 10 point differential recommended in the user's manual for the Piers-Harris. Nor is there any certainty provided by the figures as to whether the diminished self-concepts of these white students is the cause of their

pregnancies or the result of them. For educators, however, who work with pregnant teens of both races, this difference can serve as a signal to potential need.

TABLE 17

DEVIATION IN MEAN SELF-CONCEPT		
Race	N	Deviation from Grand Mean
White	15	-5.42
Nonwhite	91	.89

NOTE: Grand Mean = 58.56.

An analysis of variance of self-concept accounted for by length of time in program is presented in Table 18.

TABLE 18

SELF-CONCEPT BY LENGTH OF TIME IN PROGRAM					
Source	Sum of Squares	DF	Mean Squares	F	Sig.
Main Effect					
Days Present	5477.680	39	140.453	1.632	.042
Residual	5420.378	63	86.038		
Total	10898.058	102	106.844		

NOTE: $\text{Eta}^2 = .5044$.

There is a significant difference between self-concept depending upon the attendance record of the students. Fifty percent of variance of self-concept is accounted for by length of time in program as shown by the Eta^2 statistic. An examination of the deviations from the grand mean shows that there is not a systematic relationship, however. Table

19 provides the deviations from the mean self-concept of the study group for each number of days present.

TABLE 19

DEVIATION IN SELF-CONCEPT BY LENGTH OF TIME IN PROGRAM					
Days Present in Program	N	Self-Concept Deviation from Grand Mean	Days Present in Program	N	Self-Concept Deviation from Grand Mean
15	1	1.31	38	4	6.06
18	2	-11.19	39	9	-1.24
19	1	-4.69	41	3	.31
20	1	-1.69	42	3	-1.69
21	5	5.11	43	4	7.81
22	3	2.98	46	1	10.31
24	2	4.81	48	1	-9.69
25	1	13.31	49	1	-37.69
26	1	4.31	50	1	-4.69
27	1	-9.69	52	1	-.69
28	1	9.31	53	1	10.31
29	4	-16.44	61	1	10.31
30	2	10.31	64	1	12.31
31	8	2.69	65	1	-.69
32	3	6.64	71	1	-5.69
33	5	4.11	72	1	3.31
34	5	.31	74	1	-11.69
35	5	.11	80	2	-9.19
36	6	-.52	84	1	-7.69
37	7	-4.26	95	1	-9.69

To facilitate understanding of the differences in self-concept accounted for by length of time in program, it is important to note the attendance policy of Norfolk Public Schools. In Norfolk Public Schools there are nine weeks in a phase, or grading period. That is forty-five school days if there are no holidays. A girl is expected to take off two weeks for delivery, leaving thirty-five days to attend school. Allowing for doctor's appointments and other absences, a range of thirty to forty-five days may be considered reasonable for one grading period.

Scanning Table 19 for self-concept deviations from the grand mean for thirty to forty-five days shows only four negative scores. Three of these, $-.52$, -1.29 , and -1.69 , are very slight and the fourth, -4.26 , may be said to be moderate. The scores of the five students with the longest time in their programs are overwhelmingly negative (-11.69 , -9.69 , -9.19 , -9.19 , -7.69). At the other extreme, the five students with the shortest length of time in their programs also show a predominance of negative scores (-11.19 , -11.19 , -4.69 , -1.69 and 1.31). This analysis is directed at the impact of the type of special program in which a pregnant teen enrolls on her self-concept. These data suggest that the length of time which she spends in that program may also be important for her self-concept. It may be that prolonged separation from the so-called normal school emphasizes a teen's feelings of difference and thereby loneliness or inadequacy. Once having delivered, a baby may be home and out of sight. Return to the regular school setting as

quickly as possible may facilitate re-adjustment to the on-going demands of adolescence.

No significant differences in self-concept were accounted for by grade as shown in Table 20. Seven percent of variance of self-concept was explained by grade as indicated by the Eta² statistic. Table 21 shows the deviation in self-concept by grade. The six seventh graders showed the lowest self-concepts. The 16 seniors showed the highest.

TABLE 20

ANALYSIS OF VARIANCE OF SELF-CONCEPT BY GRADE

Source	Sum of Squares	DF	Mean Squares	F	Sig.
Main Effect Grade	787.597	6	131.600	1.234	.296
Residual	10241.277	96	106.680		
Total	11030.874	102	108.146		

NOTE: Eta² = .072.

TABLE 21

DEVIATION IN SELF-CONCEPT BY GRADE

Grade	N	Deviation
6	5	1.61
7	6	-8.26
8	13	-2.44
9	24	-1.13
10	20	1.46
11	19	.72
12	16	3.60

NOTE: Grand Mean = 58.59.

The variance of self-concept by age is presented in Table 22. The differences in self-concept accounted for by age are not statistically significant. Five percent of variance of self-concept was explained by age as shown by the Eta² statistic. Table 23 shows the deviation in self-concept by age. The three 13 year olds had the highest self-concepts. The 17 15-year olds had the lowest.

TABLE 22

ANALYSIS OF VARIANCE OF SELF-CONCEPT BY AGE					
Source	Sum of Squares	DF	Mean Squares	F	Sig.
Main Effect					
Age	535.943	7	76.563	.716	.658
Residual	10367.905	97	106.886		
Total	10903.848	104	104.845		

NOTE: Eta² = .049.

TABLE 23

DEVIATION IN SELF-CONCEPT BY AGE		
Age	N	Deviation
13	3	5.90
14	4	-1.19
15	17	-2.67
16	20	-1.14
17	27	-1.18
18	26	2.79
19	7	2.28
20	1	-1.44

The analysis of variance conducted by length of time in program with type of program as the covariate is shown in Table 24.

TABLE 24

SELF-CONCEPT BY LENGTH OF TIME IN PROGRAM
WITH TYPE OF PROGRAM

Source	Sum of Squares	DF	Mean Squares	F	Sig.
Main Effects					
Days Present	5229.041	40	130.728	1.575	.053
Covariates					
Type of Program	523.373	1	523.373	6.306	.015
Explained	5752.414	41	140.303	1.690	.030
Residual	5145.740	62	82.996		
Total	10898.154	103	105.807		

NOTE: Multiple $R^2 = .528$.

There is a slight improvement in the variance in self-concept explained by length of time in program when type of program is added as shown by the multiple R^2 statistic. The multiple R^2 indicates the amount of variance explained by the combination of the days present and type of program. Almost fifty-three percent of self-concept is explained by this combination. Fifty percent of self concept is explained by length of time in program alone.

In considering self-concept as measured by the Piers-Harris Self-Concept scale, one may consider the component factor scores as well as the total self-concept score. The Piers-Harris is composed of six factor scores--behavior,

school status, physical appearance, anxiety, popularity and happiness. Table 25 summarizes the results of a series of correlations gathered on each factor with the total self-concept within the total study group. The purpose for these correlations was to determine if any individual factor might provide an indicator of self-concept clear enough to pinpoint self-concept deficits of incoming students. In addition, the screening of students with questions from any given factor may have application in the effort aimed at prevention of future pregnancies.

TABLE 25

PEARSON'S CORRELATION COEFFICIENTS OF FACTOR SCORES
WITH TOTAL SELF-CONCEPT SCORE

	Pearson's R	Sig.
Behavior	.12658	.098
School Status	.77524	<.000
Physical Appearance	.77809	<.000
Anxiety	.80680	<.000
Popularity	.71442	<.000
Happiness	.58151	<.000

There is a high positive correlation between the anxiety factor and the total self-concept. It is essential to note that a high score on this factor indicates low anxiety. Table 26 provides the analysis of variance of this factor by type of program. The type of program in which a pregnant teenager is enrolled is more important in the explanation of the anxiety factor than in the explanation of

the total self-concept as shown by the Eta² statistic. Type of program accounts for eight percent of self-concept as shown in Table 14 and 11 percent of the anxiety factor as shown in Table 26. The high correlation between the two suggests the possibility of using the questions which form the anxiety factor as a screening instrument in the effort aimed at the prevention of teenage pregnancies.

TABLE 26

ANXIETY FACTOR BY TYPE OF PROGRAM

Source	Sum of Squares	DF	Mean Squares	F	Sig.
Type of Program	88.417	3	29.472	4.259	.007
Residual	705.847	102	6.920		
Total	794.264	105	7.564		

NOTE: Eta² = .1113.

The physical appearance factor also showed a high correlation with the total self-concept. The analysis of variance for this factor did not show a significant difference between the groups. The same was true of the school status factor.

The popularity factor also showed a high correlation with the total self-concept. Table 27 provides the analysis of variance for the popularity factor by type of program. Twelve percent of the popularity factor is explained by the type of program in which a pregnant teen is enrolled. Again, due to the high correlation between this factor and

the total self-concept of the pregnant teens tested, the possibility of a screening device is raised.

TABLE 27

POPULARITY FACTOR BY TYPE OF PROGRAM

Source	Sum of Squares	DF	Mean Squares	F	Sig.
Type of Program	63.820	3	21.273	4.681	.004
Residual	463.576	102	4.545		
Total	527.396	105	5.023		

NOTE: $\text{Eta}^2 = .121$.

Hypothesis Two

Vocational awareness has been defined to mean an individual's understanding of her needs, potential and capacities in the world of work. Such self-awareness is especially important for young persons who already head young families, as the adolescents in this study do immediately following the birth of their babies.

The Self-Directed Search is a paper and pencil instrument designed to assess vocational self-understanding. Protocols are scored on the basis of agreement or disagreement between the job aspired to by the student and the likes, competencies, interests and abilities expressed by the student.

In this evaluation the Self-Directed Search was used to address the second research question directing this study: Is the vocational awareness of pregnant teenagers enrolled in various programs of continuing education sig-

nificantly different? This lead to the second null hypothesis.

There is no difference in the vocational awareness of pregnant teens enrolled in Coronado School, Norfolk CEP, Portsmouth CEP, and the Park School. This hypothesis was accepted on the basis of the chi square statistic. The Eta² statistic (.0588) indicates that less than six percent of the SDS score is explained by the program in which a girl is enrolled. The ability to predict whether an SDS score will agree or disagree is not at all improved by knowing the program in which a girl is enrolled as shown by the Lambda of .00000. Table 28 shows the cross-tabulation of the self-directed search instrument, which measured vocational awareness, and the programs.

TABLE 28

SELF-DIRECTED SEARCH EXPRESSED AS A PERCENTAGE
(with numbers in parentheses)

	Agree	Disagree
Coronado	21.6 (8)	41.8(28)
Norfolk CEP	40.5(15)	26.9(18)
Portsmouth CEP	24.3 (9)	13.4 (9)
Richmond	13.5 (5)	17.9(12)

NOTE: Chi Square = 6.12174 3DF Sig. = .1058
Lambda (asymmetric) = .0000 with SDS dependent.

Because this evaluation is primarily interested in Norfolk programs, a crosstabulation of Self-Directed Search

with the two Norfolk programs only was conducted. Table 29 shows the result.

TABLE 29

SELF-DIRECTED SEARCH BY TYPE OF NORFOLK-BASED
PROGRAM EXPRESSED AS A PERCENTAGE
(with numbers in parentheses)

	Agree	Disagree
Coronado	34.8 (8)	60.9 (28)
Norfolk CEP	65.2 (15)	39.1 (18)

NOTE: Corrected Chi Square = 3.20170 1 DF Sig. = .0736
Lambda (asymmetric) = .0000 with SDS dependent.

Although the difference in vocational awareness between Norfolk CEP and Coronado is not statistically significant, as shown in Table 29, there is a clear trend. The percentage of agreement scores of Norfolk CEP (65.2) was almost twice that of Coronado (34.8). This suggests that the quality of career counseling of Norfolk CEP had been superior to that offered at Coronado prior to the testing for this dissertation.

Hypothesis Three

Rates of attendance were calculated for students based on school attendance records. This was done for the purpose of addressing the third research question directing this study: Are the rates of attendance of pregnant teenagers significantly different in various programs of continuing education? The null hypothesis based on this research ques-

tion was rejected. Table 30 presents the analysis which supports this rejection.

TABLE 30

RATES OF ATTENDANCE BY PROGRAM

Source	Sum of Squares	DF	Mean Squares	F	Sig.
Program	.668	3	.223	9.390	.000
Residual	2.876	121	.024		
Total	3.538	124	.029		

NOTE: Multiple $R^2 = .255$.

Table 31 shows a significant difference between the programs in rates of attendance. The level of significance (.000) exceeds the stated level of acceptability (.05). Over twenty-five percent of the rate of attendance is accounted for by the program in which a student is enrolled as shown by the multiple R^2 statistic.

Table 31 shows the deviations from the grand mean by program. The rate of attendance was highest in the Norfolk CEP at 86 percent. The rate of attendance was lowest in the Portsmouth CEP at 64 percent. Coronado students had no deviation at all from the grand mean of 77 percent.

It is essential to remember that these data are only as accurate as the records supplied by the schools. In the Norfolk CEP, the records were kept and submitted by the individual center members. According to the managers of Shiloh, Berkley, and Third Centers, the rates of attendance were 85 percent, 98 percent and 78 percent, respectively.

Although it is possible that a 98 percent rate of attendance prevailed at one of the centers, it seems unlikely. If the data from this center are deleted, and the two remaining centers used alone to constitute the Norfolk CEP attendance data, the rate of attendance for Norfolk CEP drops to 82 percent, a deviation from the grand mean of only +.05.

TABLE 31

ATTENDANCE RATE BY PROGRAM

Program	Rate of Attendance	Deviation from Grand Mean
Norfolk CEP	.86	+.09
Portsmouth CEP	.64	-.13
Richmond	.70	-.07
Coronado	.77	.00

NOTE: Grand Mean = .77.

The correlation between the rate of attendance and other of the dependent variables is shown in Table 32.

TABLE 32

CORRELATION ANALYSIS OF RATE OF ATTENDANCE

Correlation With	Coefficient	R ²	N	Sig.
Total Self-Concept	.1639	.0268	106	.047
Anxiety Factor	.1881	.0353	106	.027
Happiness Factor	.1690	.02856	106	.042

Correlations with the anxiety and happiness factors as well as with the total self-concept are significant as shown

by Table 32. This finding re-emphasizes the importance of self-concept and certain of its factors as identified by the Piers-Harris Self-Concept Scale in influencing what are considered to be positive behaviors such as school attendance.

Hypothesis Four

Academic achievement is measured by grade point average (QPA). There is no difference in the academic achievement records of pregnant teens enrolled in the Coronado School, Norfolk CEP, Portsmouth CEP, and the Park School. This hypothesis was rejected. Table 33 shows the analysis of variance of QPA by groups. There is a significant difference between the programs in QPA. Portsmouth had the highest mean QPA, 3.70. The academic achievement records of Coronado and the Norfolk CEP were virtually identical at 2.01 and 2.05, respectively. The .000 level of significance exceeds the .05 requirement stated.

TABLE 33

ANALYSIS OF VARIANCE OF QPA BY PROGRAM					
Source of Variation	Sum of Squares	DF	Mean Squares	F	Sig.
Program	42.015	3	14.005	9.855	.000
Residual	171.951	121	1.421		
Total	213.968	124	1.726		

NOTE: Multiple $R^2 = .196$.

In a further attempt to understand the quality point average of the pregnant teens studied, an analysis of

variance using length of time in program as the explanatory variable was conducted. Grades do differ according to the length of time in program as shown in Table 34. The multiple R^2 statistic is .468. This suggests that 47 percent of QPA can be explained by length of time in program.

TABLE 34

QPA BY DAYS PRESENT					
Source of Variation	Sum of Squares	DF	Mean Squares	F	Sig.
Days Present	43.291	40	1.082	1.781	.014
Residual	49.233	81	.608		
Total	92.524	121	.765		

NOTE: Multiple $R^2 = .468$.

When length of time in program is combined with type of program, the explanation of quality point average is further improved. Table 35 presents this analysis. Fifty percent of the grade point average is explained by the length of time in conjunction with the type of program in which a pregnant teen enrolled.

TABLE 35

QPA BY DAYS PRESENT WITH PROGRAM

Source of Variation	Sum of Squares	DF	Mean Squares	F	Sig.
Covariates Groups	2.829	1	2.829	4.713	.033
Main Effects					
Days Present	45.602	41	1.112	1.853	.009
Explained	48.431	42	1.153	1.921	.006
Residual	48.015	80	.600		
Total	96.446	122	.791		

NOTE: Multiple $R^2 = .502$.

Hypothesis Five

There is no difference in the rate of return to school of pregnant teens enrolled in the Coronado School, Norfolk CEP, Portsmouth CEP, and the Park School. This hypothesis was accepted. Table 36 shows the cross tabulation on which this rejection is based. Analysis of variance of these data is inappropriate because both are variables at the nominal level of measurement. Eighty-two percent of Coronado students returned to school/graduated as did 75 percent of the Norfolk CEP students. Only 52 percent of the Richmond students did so. This is not, however, a large enough difference to be statistically significant, although it is considerably higher than the national average twenty percent rate of return quoted by the Family Focus of Illinois.

TABLE 36

RETURN TO SCHOOL BY TYPE OF PROGRAM
EXPRESSED AS A PERCENTAGE
(with number of students in parentheses)

	Returned/Graduated	Did Not Return
Norfolk CEP	29.3(27)	30.0(9)
Portsmouth CEP	15.2(14)	13.3(4)
Richmond	9.8 (9)	26.7(8)
Coronado	45.7(42)	30.0(9)

NOTE: Chi Square = 6.01174 3 DF Sig. = .1110 Lambda (asymmetric) = .0000 with return to school dependent.

Summary of Quantitative Data

The quantitative data of this study yielded significant differences between programs in mean self-concept, rates of attendance and academic achievement. Differing programs of continuing education can affect how pregnant teenagers feel about themselves, how regularly they attend school and how well they achieve when they do attend.

Qualitative Data

The following section of this dissertation reports the qualitative data gathered in this study. All personal interviews were conducted by the author. All interviews with students, parents, and faculty were conducted in Norfolk. Students were selected for interviewing using a table of random numbers. Every student interviewed had signed parental consent. Interviews with program administrators were conducted in all four programs.

The content of the interviews focused on this program change. Persons interviewed both before and after the change were asked their expectations and/or reactions to the centralization of the academic program for pregnant teens in Norfolk. The interviews raised other issues as well. The ancillary topics most often discussed were warmth, curriculum changes, family involvement in the program (this referred to both fathers and grandparents of the babies), and sex education.

This section reports the results of the qualitative data gathering in three major subsections - centralization, family, and sex education.

Centralization

This section reports the results of interviews with students, teachers, parents and administrators on the subject of the format for the education program for pregnant teens. The main substantive issue is whether such a program is superior in a centralized or a decentralized format. In a centralized format, there is one central location in a school district at which a given program's services are offered. In a decentralized format, there are multiple locations. Although multiple locations may improve accessibility, they may also involve duplication of services and even diminished services at any given site due to budgetary constraints. The transition to a centralized format was made possible by the implementation of the NAPPS project. As such, the transition raised other issues including aca-

demic curriculum and excellence, attendance and day care utilization. Additional issues which were raised during the interviews and which are reported here are warmth and support, teacher attitude, and return to regular school.

When Norfolk Public Schools instituted the continuing education program in the early 1970's, there were four academic centers. According to one of the center managers this was a theoretical decision because the girls themselves defined getting to school as a problem. One of its first administrators remembered it differently. He stated that the program began in a decentralized format not by design, but because that was the only way to get it going. Churches which volunteered space could not handle large numbers so several centers had to be developed. Initially the girls stayed until the end of the year in which they enrolled.

Warmth and Support Issues. The warmth and support offered to the pregnant students by the decentralized program was mentioned in various ways by students, parents, teachers and administrators as a central asset of the program. Concern was voiced that the move to the centralized facility would destroy the essential warm and supportive atmosphere of the centers. Following the transition, the principal of Coronado addressed this issue. She was well aware of the need for warmth and closeness. She saw Coronado as a small school and saw the maintenance of the warm atmosphere as fully possible under such conditions.

Observation at the centers permitted the author to see that the centers themselves actually had different atmos-

pheres. One center appeared gloomy, the manager highly resistant to the study and the program change which was to deprive her of her job of eleven years. Another center seemed frivolous, the manager compliant but uninvolved with the students. The other center manager seemed to personify the warmth and support and positive guidance needed by the pregnant teens. This center seemed to be the most knowledgeable and efficiently run by far. It was the manager of this center who became the secretary at Coronado. Observation at Coronado led the author to conclude that the warm and supportive atmosphere needed is very much in evidence at Coronado, even more consistently than at the centers.

The biggest problem cited by teachers, counselors, and administrators was, in fact, the center managers. Lack of follow-through, no communication, poor academic scheduling, and ignoring the counselor's suggestions were cited as obstacles to effective functioning of the decentralized program. In one case, a girl could not graduate as scheduled because a manager did not schedule a certain class even though the counselor told the manager this was required. This girl never graduated from Norfolk Public Schools.

Homemaking and business classes in CEP were held at Lakewood School. Attendance was spotty because certain of the center managers did not encourage their girls to go. The vast majority of failures in the homemaking subjects was due to inadequate attendance as shown by school records.

In defense of all the center managers, this author found them all to be well-intended toward the students.

Fears of job loss and the loss of both income and prestige when their jobs were deleted were already rampant at the time this author first came into contact with them. One manager stated that the new program was devised without any visits to the centers. She feared travel problems and an impersonal atmosphere at the new facility. However, she never visited the new facility herself.

Academic Program Issues. The academic program was of major concern to all parents and teachers interviewed. Repeatedly parents and students reported favorably that Coronado allowed the students to graduate on time or at all because more advanced course offerings were available than had been offered at the centers. One girl reported that she would not have gone to school at all if Coronado were unavailable. She wanted Algebra II and did not want to stay in her home school. Without this course she could not have had her academic diploma.

The science lab at Coronado enabled this academic area to expand its course offerings. Another teacher said, "This is the first year we have really had books." Money, textbooks and materials were cited by teachers as badly needed and much improved at the Coronado site.

The public health curriculum also underwent a major improvement following the centralization. In this area, too, certain of the former center managers had been cited as uncooperative. There was a lack of conceptual understanding of the health component by some managers. This was evidenced by the suggestion of one manager that driver's educa-

tion was more important than health education. At Coronado the core course in anatomy, physiology, and prenatal care was offered every phase rather than on a rotating basis as had been the case in CEP. This enabled all girls to get this important information. In the public health area, follow up of girls and their infants was added at Coronado. Again, this component of the NAPPS project should have a positive effect on the Norfolk Public School students.

Guest speakers are an important adjunct to any educational program. Consolidation facilitated the use of guest speakers by scheduling a regular period weekly for them at the centralized facility. This improvement was mentioned by teachers in several academic areas.

Staff Issues. It is important to note at this juncture that teachers in the CEP were the same teachers hired at Coronado, for the most part. This variable, then, can be considered to be as constant as humanly possible. In observing the teacher variable there are two aspects that need to be considered--attitude and contract--and they are largely interrelated.

The original mechanism for developing the Norfolk CEP was under the group homebound rubric. This meant that teachers were paid hourly for work they performed. This same scale applied to the majority of teachers at Coronado School. There were two teachers, however, who were full-time contract teachers eligible for benefits that the others did not receive. It was an unfortunate coincidence that the two contract teachers were non-white. Not all teachers in

the program expressed the desire to be under contract. The flexibility of the group homebound system was considered a major benefit by many of the part-time personnel. In fact, one teacher stated that if forced to go on contract she would leave the program. It may have been personalities, it may have been a disguised racial resentment, but there was an undercurrent of dissatisfaction evident at Coronado which may have impaired the effectiveness and certainly damaged the cohesiveness of the faculty. One white teacher said she was leaving the program because she felt a racial division on the faculty which she could not tolerate.

On the positive side, there was a new aura of professionalism evident at the centralized facility. Coronado has a teacher's lounge which provides the faculty a much-needed gathering place. Informal conferences and sharing of information as well as the ubiquitous tales of woe relevant to shared students could take place. In the decentralized facilities, teachers did not seem to have any place to conduct this necessary information sharing.

One of the criticisms offered by two professionals from other NAPPS agencies was that the teachers needed to be better role models. Because of the informal atmosphere of the school, many teachers appeared to be less neat or well-groomed than they might be elsewhere. It is interesting to note that one teacher who was criticized by the agency personnel as slovenly went on to teach full-time at one of the Norfolk senior high schools. In fact, her appearance was observed to improve at the latter placement.

The attitudes of teachers, counselors, and administrators outside the programs as well as those within them are of vital importance to their success. One of the fears expressed by administrators of the special programs was that regular school personnel should not see them as glorified babysitting. One counselor in a Norfolk senior high school stated,

I would think it would be better in one center (Coronado). It should have more supervision about what is taught. Grades from the centers (CEP) were highly inflated. You must remember that their classes are smaller. But, I've not found that individual attention carried over when they returned to school.

Support for Centralized School In general, the counselors in Norfolk Public Schools appeared to favor the special program for their pregnant students. In one case, a mother stated that the counselor knew her daughter was pregnant but did not provide information on the special program. As a rule, however, the counselors encouraged their girls to go to CEP or Coronado. This may reflect a genuine concern for their welfare or the traditional fear of contagion, of seeing pregnant girls as "sick" and wanting them out of the way.

One Coronado student stated that she really didn't want to enroll but her counselor pushed her. She would have left school entirely but she agreed to try Coronado. She found it

. . . nice. The teachers are nice. If you have a problem you have someone to talk to. Classes are smaller so they get to know you. At (high school) there isn't anyone really, unless I go to a counselor.

The counselor who encouraged this student to go to Coronado is a very conscientious, concerned and gentle individual who said rather shyly that she thinks the special program is important but "we don't want to do too much for these girls."

The issue of someone to talk to was raised frequently during the transition period. The part-time itinerant counselor of CEP was to be replaced by a full-time on-site counselor at Coronado. Teachers, parents and students alike felt that the students needed a personal counselor with whom to discuss problems and fears. Girls who are singled out for individual attention feel isolated, according to a Norfolk physician familiar with pregnant teens. They need to talk about personal problems. Results of a self-study conducted by the author at one Norfolk public high school revealed that students are generally satisfied with their high school counselors with one exception. Students did not feel they received enough help with personal problems.

At Coronado, the possibility of finding a person and a time for problem resolution was maximized. The three on-site nurses and any of the teachers were present as was the principal, the secretary and the attendance worker (who was there for one semester only). Girls found different people with whom to share their problems. The cafeteria manager provided informal information on nutrition, jovially encouraging the girls to exercise.

Before Coronado, one NAPPS staff member complained, the CEP had been poorly publicized. Coronado was better publicized. There were some reservations expressed about

the credibility of Norfolk State University as the coordinating agency.

Competition which existed in CEP among girls from different centers vanished at Coronado. Teachers initially complained about classes being too large when consolidation was instituted, but this problem appears to have been solved. Girls liked the consolidation. "The day's not all chopped up. No bus rides to business and homemaking." Physical education, lunchroom facilities and the day care center were frequently cited as advantages of the centralized program.

The day care facility appeared to be under-utilized. Girls found it easier to leave their babies home. Many babies were only brought to school on occasions when they could be all dressed up and shown off. Some teachers complained that girls avoided their class work by going into the day care center.

Alternative School Issues. Over and above the issue of whether a centralized or decentralized facility is superior for a special program for pregnant teens lies the issue of whether a special educational program is necessary at all. A Norfolk physician familiar with pregnant adolescents stated that from a medical standpoint there is no reason to leave the home school. He saw isolation as a negative aspect of such programs. Mothers of students and students themselves expressed a different opinion. The girls don't want to be different and at their home schools the difference eventually became obvious. Girls complained

about crowded hallways and climbing stairs. "I came over here because I didn't want nothing to happen to me. I wouldn't have to walk no stairs." This was from a student who also felt she was learning more at Coronado than in her home school because the teachers "take time and work with you. I had good grades at (high school). They may be a little better over here." The special program was repeatedly credited with keeping students in school. "If there wasn't no (special) school, I wouldn't go to no school."

Generally, following the transition, resistance to it diminished. Teachers admitted that Coronado was an improvement.

I didn't know it would be like this. I thought we'd been doing pretty good. It was just resistance to change. I like it over here. In my opinion, I feel its better for the girls. They come to school better. Seeing so many together a feeling of kinship exists for the girls, but seeing only eight girls in a day might discourage girls from coming. There's more of them. They feel a little better about themselves. It's much better.

Another view was expressed by a teacher who worked both at CEP and Coronado.

Neither program provides what they really need. The girls need a whole new angle which the educational system does not provide. They need a spiritual out-look, a moral system. They need people to go into their homes. They love their babies. But . . . the way they think, what they want out of life.

One of the more talented and articulate students at Coronado stated the following:

I'm getting everything I thought I would. It's a lot different from what I expected. It's easier than a real school. Not easier. It's that they

understand more--they let you go out. You can go to the bathroom anytime. It seems secluded. It's a little bad. We have to go through it.

Some of the teachers talk down to the level of students to get them to pay attention. They should try to bring the girls up. That's the general atmosphere. They present things so easily that you couldn't miss it if you tried. It makes it kind of boring.

I'm glad I'm here because if they didn't have this I wouldn't have my academic diploma.

The parents are glad for academics. But, they feel health should not be compulsory.

I think it should be compulsory for most girls because they need it. But for me, I've gotten it elsewhere.

I don't like this school. This little world of pregnancy. Part of me dreads coming here everyday but I couldn't go to (high school) now.

They put everyone in one category. Everybody's pregnant. But everybody's not pregnant for the same reason. It seems natural for some girls to have 3 babies by 17. It's really weird. Walking in here, it seems like it's so natural to be pregnant. But it's not. They treat it lightly. They should put more emphasis on responsibility.

They have their day on responsibility. But most of the girls don't respond.

The attitude toward being pregnant and having babies is not realistic.

I think my friend wants to give the baby up but around here the pressure is great to keep it. She's scared to ask someone's opinion because a lot of people here feel like giving up a baby is worse than abortion.

As educators we are reminded to scrutinize the world of pregnancy ever more carefully. There are so many needs to meet.

Family

The families of the girls randomly selected for interviews in Norfolk were overwhelmingly supportive. In no case, however, was any mother pleased that her daughter was pregnant. "You don't want them to become pregnant, but once they are, at least there is a place to help them." This included both white and non-white families and both extremes of socioeconomic status. Mothers seemed close to their daughters, though this may have resulted from the pregnancies rather than preceding them. Mothers seemed to depend on their children and the children on their mothers. The children generally depended on their families for infant care. Many child-mothers stated that they would not use day care because "mama won't let me bring the baby out in the cold, on the bus, etc."

Although mothers and sisters and other family members were generally the caretakers of these infants, the mothers of the pregnant teens frequently expressed the attempt to make the young mothers feel their responsibility. "I'll keep the baby any time she has to go out to do something with school. Other than that, she's got to be responsible."

Another mother told her daughter "whatever happens, you are going to school." To the interviewer she said, "I really think it's a good idea. Some days she takes the baby with her. The school informs her about child care and she's learning things that I forgot to tell her. I haven't had a baby in a long time."

The mothers of the pregnant teens were all favorably disposed to school, any school. In general, these mothers were content with whatever program their daughter might be enrolled in and the change in Norfolk did not seem to concern them.

Many of the mothers and sisters and brothers' girl friends had babies as teens and before marriage. A senior at Coronado was overtly proud of the fact that she was eighteen when her daughter was born. Her own mother had been thirteen when she gave birth to her. "Look, I outlasted her by five years."

One NAPPS staff member identified the need for work with parents so they can better themselves and be role models. "Children live the life they see" and "there is a stigma being on ADC". We need to "put something else in front of them".

The educator's view of the families of the pregnant teens was not so different. "We need better cooperation from parents," said one teacher in Norfolk. "Parents need as much education as kids." "That home impact is great. Period. We can't do it all." "They haven't had anyone take time, attention to communicate in the family." The Norfolk Social Service component of the NAPPS project has responsibility for family counseling.

Within the school context, an unfortunate disparity exists as a result of the hourly status of all but two of the teachers at Coronado. When Norfolk Public Schools had Parents Night during the course of this study, Coronado did

not participate. The administrator responsible for Coronado's region felt that hourly teachers could not be made to come in to be available to parents.

Some parents of pregnant and mothering teens come by to pick up and deliver students or to handle a discipline problem at Coronado. Otherwise there is not very much home/school contact.

Sex Education

One of the stated goals of the NAPPS project, of which Coronado School is a significant component, is the prevention of adolescent pregnancy. The Public Health Nurses in Norfolk CEP and at Coronado and the Planned Parenthood component of NAPPS were the agencies charged with the major thrust of sex education. Norfolk Public Schools was considering the implementation of a voluntary, after-school program of sex education for senior high school students at one time. This course never eventuated.

Among the pregnant students and their parents who were interviewed, the issue of sex education as a means of prevention was raised repeatedly. One young mother of two who was in the Norfolk CEP with each pregnancy stated that parents not schools should tell children about sex. When the interviewer asked this young mother if her curriculum in Norfolk CEP had covered contraception, her father broke in and answered for her--"She didn't learn much, did she?" Her second baby was then about two months old, her older child 14 months. Another pregnant student stated "public school

needs to teach prevention." This girl's mother was unable to answer any of the interviewer's questions. She explained that she had a "nerve problem" and the interview proceeded in her presence with no further input from her. One father stated that "they need preventive counseling in regular school."

One mother of a pregnant adolescent summarized the dilemma neatly. "If I had put her on the pill, it was like giving her permission." Another mother, whose 15 year old daughter was expecting her second child closed her interview by saying, "You tell her. Maybe she won't bring me home another one."

A NAPPS staff member from another agency identified "real" sex education as the kind of special assistance the students need. They need to understand body development and stages. Parents should provide this assistance or the health field, not social workers who "get hung up on being better than 'those people.'"

Although there were some girls who stated that they chose to get pregnant, the general consensus among parents and educators was that ignorance is still a major factor in adolescent pregnancies, true ignorance about sexuality. A physician whose specialty area included adolescent endocrinology and whose major interest is in adolescent pregnancy stated, "Education is not enough. The bottom line is motivation. And that is something you can't teach, at least not in a passive way. The most crucial issue with why teens get pregnant is risk-taking." Sex education then is more

than teaching mechanics. It must involve decision-making, role playing, self-awareness and the development of viable alternative roles. The predictability of young lives with little future and the easy assurance that family will help out, makes this area of education much wider and deeper than a survey of biology or anatomy.

One educator whose work with the pregnant teens is of long standing and a very high calibre has modified her thinking as a result of her experience with pregnant adolescents. "Maybe we need to return to moralizing. Maybe we are asking too much by expecting responsible contraception from kids."

Summary of Qualitative Analysis

In general, the move from a decentralized to a centralized facility was viewed negatively prior to the actual change. Students, faculty and parents were satisfied with Norfolk CEP as it was. Following the move to Coronado, both direct and indirect participants voiced enthusiastic approval of the new arrangement. Students and parents were delighted with the lunchroom, the street level building, the supportive faculty. Teachers were pleased with the improved physical plant and supplies.

Overall, the qualitative analysis showed that the families of the pregnant adolescent needed more attention than either Coronado or NAPPS provided. By their lives students showed this need. By their statements educators identified this need. Sex education, whether through the

family or through the school was another significant deficit revealed.

Summary

Five null hypotheses were tested. Self-concept, vocational awareness, rate of attendance, academic achievement, and the rate of return to regular school placement of pregnant adolescents enrolled in different programs of continuing education were compared.

The null hypothesis concerning self-concept was rejected. Differences in self-concept were found significant at the .04 level of significance. No quantitative differences were greater than the ten point minimum difference recommended by the Piers-Harris Self-Concept Scale Model. The only positive deviation from the mean was found in the Norfolk CEP. Qualitative data revealed a positive impression of Coronado over CEP which the girls' self-concepts did not reflect.

Overall, white students deviated over five (-5.42) points below the grand mean, whereas nonwhites deviated slightly above it (.89). There is no certainty whether the self-concepts of the students contributed to their pregnancies or resulted from them. Remediation is clearly indicated in either case.

Vocational awareness was not found to differ significantly among the four programs observed. When Coronado and Norfolk CEP were compared, results were still above the .05

level of significance, but a marked trend in favor of the career counseling offered by Norfolk CEP was evidenced.

Rates of attendance were calculated for each of the four programs based on school records. The difference among them was statistically significant. Norfolk CEP had the highest rate (.86). The Coronado rate (.77) was equivalent to the grand mean for all groups. A statistically significant difference was also found among the four programs in grade point average, the measure of academic achievement. No difference was found among the four programs in rate of return to school.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the foregoing research by providing conclusions and recommendations to the decision-makers responsible for the Coronado School. Coronado, as a central feature of the NAPPS project, is affected by the level and focus from which NAPPS is designed and implemented. The recommendations offered in this chapter may, therefore, be relevant to NAPPS as much or more than to Coronado alone. This relationship is unavoidable. Nor is it a detriment. Much of the improvement in the education program offered by the Norfolk Public Schools to its pregnant adolescents is related to the expanded resources of the NAPPS project.

Conclusion

Hypotheses examined in this dissertation considered self-concept, vocational awareness, school attendance and achievement, and the rate at which students returned to their regularly assigned home schools following inclusion in programs of continuing education for pregnant teens. Statistical analysis showed the mean self-concept of Coronado

students, as measured by the Piers-Harris Self-Concept Scale, to be slightly below the grand mean of the respondents in this study (see Table 15). Mean self-concept for Norfolk CEP was above the grand mean. The disparity between these scores is less than ten points. Users are admonished to ignore differences of less than 10 points by the Instructors' Manual for the Piers-Harris. As considered in Chapter Two, the self-concept may be too well established by adolescence to permit modification by a short-term program of educational intervention (Engel, 1959; Jones, Stefflre and Stewart, 1970; White, 1980).

As analyzed in Chapter Four (see Table 29), the vocational awareness of Norfolk CEP students was shown to be superior to that of Coronado students.

The measure of attendance rate showed that of Coronado students to equal the grand mean. The rate of attendance for Norfolk CEP was slightly above the grand mean. The statistics which show this difference are based on records supplied by program personnel.

Academic achievement as measured by grade point average was virtually identical at Coronado (2.01) and Norfolk CEP (2.05). This finding is not difficult to understand. At the time of this study, few changes had been made in the faculty serving the two programs.

No statistically significant difference was found in the rate of return to school among the four programs (see Table 36). Norfolk CEP accounted for 29.3 percent of students who returned or graduated appropriately. Coronado

accounted for 45.7 percent of such students. Stated differently, 75 percent of Norfolk CEP students returned to school or graduated appropriately; 82 percent of Coronado students did so.

Based on these quantitative data, no strong conclusion can be drawn. Although statistically significant, differences in self-concept among the groups are not substantively important. The difference among the groups in rates of attendance was also statistically significant although there is some doubt as to the accuracy of the data. Neither vocational awareness, academic achievement nor return to school were found to differ significantly.

Based on the qualitative data, a weaker conclusion is possible. Coronado represents an improvement in the education of Norfolk's pregnant adolescents in a single-site educational facility unshared with any unrelated activity. Wider curriculum offerings in both academic and vocational areas have become available. Teachers have reported improved availability of textbooks and supplies. Parents and students have commented favorably on the supportive atmosphere, the curriculum, and such additional benefits as the federal breakfast and lunch program, the lunchroom, physical education, and infant day care, none of which were available in Norfolk CEP.

A further benefit of the Coronado School is the direct linkage to other Norfolk agencies which offer needed services to pregnant adolescents--Norfolk Public Health, STOP, Norfolk Social Services, Norfolk Redevelopment and Housing

Authority. Both the interagency linkage and the in-school administration at Coronado are more consistent and professional than that prior to NAPPS. The area of observed weakness at the time of this research was that of counseling. It is within the province of the counselor that self-concept enhancement and development of vocational awareness fall. The initial Coronado counselor was observed to be reserved, aloof, almost withdrawn from her students. This personal style appears to be reflected in the quantitative results shown for self-concept and vocational awareness.

Based on both quantitative and qualitative findings, a rather homogeneous group of subjects was identified. From this homogeneity, it is possible to develop a working model to identify students at risk for early pregnancy in an effort to prevent it.

Family circumstances are a prime factor in the development of this model. The qualitative data gathered revealed the prevalence of families in which the mothers of the pregnant adolescents had been young mothers themselves, also unmarried. Many of the girls, both black and white, had older sisters who were young, unmarried mothers. These factors have also been noted in the literature relevant to adolescent pregnancy.

Self-concept is another potential indicator of adolescent pregnancy. Further research into the relationship between the 12-item anxiety factor and the total self-concept as identified by the Piers-Harris Scale is in-

licated. A substantial correlation between these scores was found in this sample of pregnant teens. If this correlation holds true for younger and non-pregnant females, the 12-item anxiety factor is a potential screening instrument for self-concept deficits. Such research is currently being planned by the author for implementation in Norfolk Public Schools.

Recommendations

The recommendations which follow are offered to further enhance the program in operation at the termination of this study. These recommendations are offered under four general subsections--accessibility, administration, counseling and pregnancy prevention. The recommendations concern the following:

1. Standardized referral procedure
2. System-wide inservice on adolescent pregnancy and Coronado
3. Public information program on Coronado
4. Return to home school
5. Services for pregnant adolescents who remain in home schools
6. Quality of personnel
7. Babysitting Cooperative
8. Volunteer Coordination Site
9. Summer program
10. Automated Information Management System
11. Case conferences
12. Outreach
13. Contract/Noncontract Employment

14. Attendance counselor
15. Follow-up/transition to home school
16. Day Care Expansion/Living Laboratory
17. Self-concept Development in students
18. Research on anxiety factor
19. Staff development
20. Extended family counseling
21. Mother-Daughter relationship
22. Pregnancy prevention/sexuality education

Accessibility

The referral procedure for the Coronado School for pregnant teenagers depends upon the Norfolk Public school counselor. That is, the home school counselor is expected to inform students of the existence of Coronado, to provide the necessary forms to facilitate entrance. Interviews with students and parents indicated that the preponderant majority learned of Coronado from a source other than the home school counselor. Friends who had been enrolled, neighbors and siblings were cited as the major source of information rather than the school counselor. One student even claimed that the counselor knew she was pregnant and did not inform her of the existence of the special program. Speedy entrance into Coronado is advisable so that health education can be provided. In addition, data from this study showed that 50% of self-concept is explained by days present in a program of continuing education.

Not only counselors, but teachers and administrators as well, must be made fully aware of the Coronado School program and the NAPPS project. Open house at Coronado which counselors and administrators would attend during the paid school day is recommended. Information could then be transmitted through to the classroom teachers. One teacher from a senior high school thought the continuing education program had gone completely out of existence, that no special program was offered in Norfolk to pregnant adolescents at a time when Coronado was in full operation.

The need to meet medical and social service needs without encouraging future pregnancies (Kelly, 1963) is central to the accessibility issue. Parents and school personnel interviewed were sensitive to the need to publicize the program sufficiently without seeming to invite girls to become pregnant to take advantage of it. Prevalent among school personnel and lay people is the idea, frequently expressed with considerable bitterness, that by making things "easy" for pregnant teenagers through special programs, ADC, food stamps, etc., we encourage them to have more babies. One NAPPS staff member claimed that the girls "hide out" at Coronado. She criticized the enrollment policy, the flexibility of which she felt was abused. One teacher within the system felt and expressed strongly that girls should return to their home schools immediately following delivery. Data on self-concept gathered during the course of this study suggest the advisability of this course. Students in a program more than forty-five days of

the academic year tended to have lower self-concepts than those in a program less than forty-five days, as shown by Table 37.

Students in a given program of continuing education approximately one grading period in length--that is, thirty to forty-five days--had a higher mean self-concept than those in programs of less than thirty or more than forty-five days. These data suggest that inclusion in a program of continuing education may be most beneficial to student self-concept as a short-term measure.

TABLE 37

MEAN SELF-CONCEPTS ACCORDING TO
LENGTH OF TIME IN PROGRAM

Length of Time in Program	Mean Self-Concept
Less than thirty days	57.06
Thirty to forty-five days	60.03
More than forty-five days	54.84

This is tangential to the regular vs. special program issue. As stated by a physician who specializes in adolescent pregnancy, there is no medical reason for a special program. Kvaraceus (1970) asked what message we send by isolating the pregnant teen, and what message do we intend? The tasks of a program serving teen mothers and their infants have been defined as completion of young mothers' personal psychological development, separation of mother's and infant's needs, provision of information on child care and development, strengthening mother/infant relationship

and utilization of community resources (Levenson, Hale, Hollier and Tirado, 1978). The program described in St. Paul, Minnesota, has demonstrated positive outcomes for pregnant adolescents when prenatal care was provided in public school (Berg, Taylor, Edwards, and Hakenson, 1979).

An unspecified number of Norfolk adolescents choose to remain in their home schools. Because they choose to remain in their home schools, pregnant adolescents are no less in need of the support and information provided by Coronado's program. Just as students enrolled in Norfolk public high schools are eligible to go to the Vocational Technical Center or the Adult Learning Center for courses they require, so students, both pregnant and not pregnant, should be able to use Coronado as a resource center for information and training.

Staff turnover within NAPPS has taken place since the conclusion of the data gathering phase of this dissertation. The counselor at Coronado has been replaced. Both the counselor advocates of NAPPS have left and been replaced, as has one of the community resource specialists. In all cases, staff changes appear to be positive additions to the program. The counselor at Coronado is a warm and energetic woman who has had long experience with pregnant adolescents through earlier work with Norfolk CEP. Both new counselor advocates appear to be open and enthusiastic. The new community resource specialist is a male. This should help to encourage more male participation in the program. It is badly needed.

Baby-sitting is one concern frequently expressed by the pregnant adolescents and the young mothers at Coronado. Girls expressed fears that they could not find someone who would take good care of their infants. A cooperative established for baby-sitting could operate easily out of the Coronado School. Girls could be trained for child care within the Day Care Center and the training itself would be a constructive activity, a quasi-support group. A time-sharing cooperative for baby-sitting would be an outreach component of Coronado to provide needed support and services to participants. This recommendation is meant to make such a Cooperative available to any teenage mother in the city of Norfolk. The on-site day care center is a natural site for training in child-care skills.

The role confusion of young mothers cited in the literature seemed typical of the group of pregnant adolescents and young mothers observed during the research for this dissertation. The impression gleaned by this author is that the young women need a great deal more on-going support than they currently receive if they are to be successful as individuals and as parents. This problem could be approached by a mother-to-mother network involving the young mothers and older, established, volunteer mothers from the wider community in a Big/Little Sister paradigm. Again, the central coordination point of such an effort could easily be Coronado, increasing the school's visibility and its effectiveness. Norfolk State University, the coordinating agency of NAPPS, offers a degree in social work. Students

from this program might well serve an internship at Coronado, thereby expanding personnel.

Cannon-Bonventre and Kahn (1979) interviewed over 100 black, white and hispanic parents aged 16 to 19 at delivery. The young parents cited isolation and loneliness as second only to financial problems. They felt isolated by the absence of a network of friends. The authors felt that such isolation contributes to the probability of child abuse and neglect, depression and suicide. Ray and Johnson (1983) cited depression and alienation among the most prevalent causes of adolescent suicide. These psychological correlates of adolescent parenthood contribute to the 300 percent increase in adolescent suicide since 1957. Many girls return to visit Coronado with and without their babies following their returns to their home schools. This information from the qualitative data gathered lends support to the recommendation that the use of the Coronado site could be expanded to provide more of the ongoing support needed by its former students and to decrease feelings of isolation and loneliness.

Another area in which the pregnant teens in this study are underserved is in summer programming. At the time data were gathered for this study, little was offered to pregnant teens during the summer. Despite the fact that their needs for self-awareness and self-esteem, parenting skills and decision-making skills, day care and transportation remain the same, no on-going program was offered. At one time, one of the Public Health nurses located at Coronado School

attempted to develop a summer group at the school. No such plans were implemented, however.

Vivamos! A Teenage Parent Network Program of the Community Guidance Center of San Antonio, Texas (Lende, Gilmore and Cavanaugh, 1980) offers a model for short-term, four week, sessions which provide first aid information, values clarification, family planning, day care and transportation. The pregnant teens in Norfolk would clearly benefit from a non-academic summer program. Some might even take advantage of summer school academic work to catch up or lighten future loads. A needs assessment is recommended to learn from students, teachers and administrators what needs could best be met by a short-term summer program offered at Coronado.

Follow-up is a mandated component of the NAPPS project. Continuity of care and support is a much wider and more necessary concept. Girls continue to return to Coronado for brief visits with favorite staff or teachers, to show off babies as they grow. This spontaneous return on the part of former students is evidence of their needs and of the value of the Coronado environment. This community of care must be continuous if it is to have long-term effects. Both the support-network and the summer program are recommended to this end.

Administration

One of the significant aspects of the Coronado program is its linkage to the other NAPPS agencies. This linkage of

agencies is one of the innovative features of the NAPPS program, one of the potential assets of Coronado. Designed to facilitate service delivery, the linkage operated without sufficient control at the time of this study. Referrals were made more or less informally. They were not always expedited. An earlier evaluation in which this author participated has recommended an automated management information system to the NAPPS project (Nolan, 1982). Such a system would facilitate the linkage of agencies with Coronado by decreasing paperwork and improving the quality of student records. It was noted in that evaluation as well that an automated information management system could establish Norfolk State more clearly in its supervisory role over Coronado and NAPPS. As of the Fall 1983, such a system had been proposed. A request for reallocation of funds to finance it was denied by the state. Allen and Bender (1980) emphasized the need for clear leadership in managing programs designed to serve pregnant adolescents. Statements from direct and indirect program participants as well as staff indicated that definitive leadership was lacking for NAPPS.

One of the most serious gaps in services to pregnant teens is that of prenatal care. The desire to conceal pregnancy from peers, family, and school officials may be responsible. Other explanations offered were inadequate transportation, lack of privacy in crowded clinics, fear of examination. Pregnant teens have been cited as being particularly vulnerable to real or imagined slights (Bernstein,

1963). Continuity of care is vitally important (Mercer, 1980). Facilitating information management should free personnel for the vital follow-up component of this program. At the conclusion of this study, the three public health nurses, as case managers, had the responsibility for follow-up as well as their regular in-school duties. It seemed unrealistic for follow-up to be more than a cursory call. Program staff inundated with record-keeping should be freed to expand the intensive and long-term counseling so desperately needed by this population. A monthly case conference, recommended earlier to the program manager, has been instituted. The purpose of such conferences, to update personnel as to problems and progress of students, should also facilitate a cooperative approach to problem resolution.

Outreach is a vital component of a successful program for pregnant adolescents and adolescent parents. Development of Coronado as a gathering place or program hub could also generate volunteers to facilitate outreach. Former program participants, fathers of babies, and extended families are appropriate sources of volunteers to maintain contact with and educate the community to services needed and offered.

The success of any program depends upon the personnel who implement it. On the whole, the personnel at Coronado School appeared to be competent and caring as observed by the author. This judgment includes the kitchen and maintenance staff as well as the front office and administra-

tion. One personnel issue was raised repeatedly from a variety of different perspectives. This is the issue of contractual employment. As described above, the business and homemaking teachers were the only faculty members on contract. All other teachers were paid hourly as group homebound teachers. These teachers then were only paid for the hours they taught. This often meant that the phone calls teachers were expected to make to check up on absences did not get made. Faculty meetings may or may not have been attended. After school parent conferences were not likely.

It might seem that hourly employment is undesirable and undesired. This is not the case. Many of the hourly teachers selected their work specifically because of its part-time nature. Many have stated that they would quit if required to go to contract status. Unfortunately this is not universally so. Teachers remain at Coronado who want contracts but are unable to get them. This appears to cause an undercurrent of dissatisfaction. The recommendation in this area, then, is two-fold. Those teachers who wish contracts should be offered them. If Coronado is to be a "real" school, it must have "real" teachers. Those teachers currently employed who prefer the part-time status of group homebound should be allowed to continue under this system, being paid for hours to attend meetings before and after school hours. As these teachers leave Coronado, they should be replaced by contract teachers.

It must be recognized that even contract teachers should not be asked to do two jobs at once. Any teacher

contracting to work at Coronado needs special understanding of the needs of the pregnant adolescents (s)he will teach. Extra attention and time will certainly be necessary. However, teachers must not be expected to do the work of an attendance counselor. The program at Coronado will be ineffective, no matter how well it is designed, if the student is not in attendance. An attendance worker was a high-priority to the principal from Coronado's inception. And the principal held out until she could hire a skilled worker. Coronado had a half-time attendance counselor for one semester in the Spring of 1982, a graduate student who is a Licensed Professional Counselor with a master's degree in Special Education and a Certificate of Advanced Study in Guidance and Counseling. Absent students were followed up immediately. Home visits were made weekly. Work was delivered to students who were confined to their homes. Referrals were made to at least two of the other NAPPS agencies. A true outreach effort was in operation. This component of the program is of vital importance. It should be reinstated and expanded to a full-time contract position.

An itinerant counselor of this nature at Coronado should have the responsibility of home liaison for all students. This professional could coordinate parent volunteers and the babysitting cooperative. Attendance officers of this calibre began working in Norfolk Public Schools in 1973. There are 44 such persons in the schools today (Kessler, 1983).

Another important function of the attendance counselor would be to facilitate the transition from Coronado to the home school. A very short time after the first phase of a girl's return to her home school, she should receive a telephone call. This extension of Coronado would be designed to offer support for her new role as mother-student. It might also signal her home school counselor to be alerted to an incipient problem.

The attendance counselor described would also routinely contact the home school counselors to mention when a counselee is returning, to provide any pertinent facts. This should serve to make Coronado students visible in the mind's eye of their busy counselors, who might then be more attuned to them and to their needs.

A final administrative recommendation is appropriate to facilitate effective program delivery. Day care services must be expanded. Services for infants and toddlers of public school students must be available, either through semi-centralized facilities or through the expanded training of group home care persons. Increasing the day care capability of NAPPS will make it available to a wider segment of the school community. Having more infants/toddlers on site will provide a child care training facility of wider scope and greater applicability. Non-pregnant and non-mothering students would be encouraged to use the facility as a learning laboratory. Shoop (1979) described the successful functioning of just such a "living laboratory" for child development education for parenthood. What young parents

and potential parents gain in understanding and skills, society will gain in the contribution of successful adults.

Counseling

This section presents recommendations relevant to the counseling offered to Norfolk's adolescents by Coronado and NAPPS. These have previously been offered to the program coordinator and some have been implemented by this writing.

Pregnancy results from the practice of contraceptively unprotected or ill-protected sexual intercourse. The likelihood of decreasing the prevalence of sexual activity among adolescents in our sexually permeated society by counseling or any other means is too slim to be considered. Traditional resistance to inculcation of moral values by public schools is too entrenched to make such a course of action feasible in any case, although it has been suggested by Kelley (1963). Development of self-concept does fall well within the purview of public education. Purkey, Raheim and Cage (1983) emphasized the importance of school experiences in the development of the self-concept. Environment and expectations play importantly in the development of self-concept and as such need attention from all personnel associated with adolescents. Counselors associated with Coronado need to place considerable emphasis on the development of self-concept in the clientele they serve. Staff development for faculty in this area is badly needed. For the at-risk teenager who is sexually active but not yet pregnant, self-concept enhancement and sexual decisionmaking

skills development must take place in the home schools. Little is being done in this area at the high school level. What is needed is a comprehensive developmental counseling program beginning at the preschool level. Implementation of this recommendation would serve to enhance the prevention component of the Coronado program.

One result of the data analysis is the observed correlation between the Factor IV (Anxiety) score and the total self-concept. As noted in the manual for the Piers-Harris Children's Self-Concept Scale, the use of factor scores for further research is most appropriate. If the 12 items of the anxiety factor are correlated to the self-concept of female adolescents of all ages, counselors will have a convenient screening tool by which to identify students particularly in need of self-concept enhancement. Further research into this possibility is recommended.

Staff development is indicated in other areas. Observation has shown the staff to be generally sincere and dedicated to the students at Coronado. Discouragement among the faculty is not uncommon, however, and needs to be acknowledged and actively combatted.

Friedman (1966) pointed out the importance of the mother-daughter relationship. It is potentially both causative and remediative in adolescent pregnancy. The ambiguous situation which may develop when grandmother takes over parenting is poignantly illustrated in the National March of Dimes Film "Woman-Child." A teenage girl who wanted something of her own found that she only got part of her baby.

"My baby calls my mother 'Mama.' I try to tell her but she won't listen." The grandmother herself may need support in the transition to a new role and acceptance of her daughter's situation (Smith, 1975). Family counseling is also indicated for enhancement of self-concept of the pregnant adolescent. Coopersmith (1969) suggested accepting the child and enforcing clearly defined limits as antecedents of positive self-concept.

As noted in the report of the qualitative data gathered for this dissertation, the Norfolk mothers of pregnant adolescents were not happy about their daughters' pregnancies, but each was standing behind her daughter with whatever psychological and financial support she had to offer. The development of communication skills is required (Copeland, 1979; Kelley, 1963; Tyrer, Mazlen and Bradshaw, 1978). Based on Lewis' (1973) findings, increased discussion of sexual topics may even result in improving the preventive component of Coronado's program. One-to-one and small group counseling needs to be expanded to include the fathers of the babies (Pannor, 1963) as well as extended families. This should provide mutual support and enhance parenting.

The parents, like the adolescents, need assurance that they can trust the counselor, that they are welcome and respected. It appears that the newly acquired Coronado counselor will be better able to offer this warmth than some of the former staff. Group counseling is being offered

including extended families and fathers. Students who have dropped out are being sought to include in groups.

The counseling services to pregnant and parenting adolescents could be improved by a less formal approach to offering of counseling. If Coronado can be developed into a gathering place for young mothers and fathers, counseling can be inserted into the activities informally. It may then be less threatening and more easily accepted.

Pregnancy Prevention

The title of the program of which Coronado is a component reveals its goals and their priorities--The Norfolk Adolescent Pregnancy Prevention and Services Project. Kelley (1963) stated "preventive efforts are even more important than remedial measures in attacking any social problem."

At Coronado, as in other programs of its type, educators are dealing with the failure of society to provide girls the self-esteem and support to resist the allure of motherhood. Seen as a release or an escape, motherhood may be fantasized to avoid facing the real responsibilities of life. The figures in Chapter 1 of this dissertation support the need especially to reach nonwhites under 15 years old. Identification of high-risk teens under 15 has also been cited as essential by Hollingsworth and Kreutner (1980).

The adolescents who conceived due to some unconscious motivation must receive intensive counseling. There are also adolescents whose pregnancies resulted from contracep-

tive failure, not due to their own incompetence nor to a hidden agenda. Though this group is surely small, interviews have pointed to its existence. These are the true accidents.

Incorrect information and popular myths about conception and contraception contribute heavily to the incidence of adolescent pregnancy (Fielding, 1978; Tyrer, Mazlen and Bradshaw, 1978). These are correctible through education. Jekel (1977) recommended a program of family life and sex education to determine its effect on fertility. Allen and Bender (1980) cited the American Public Health Association policies on adolescent pregnancy. They include access to sex and family life education, contraceptive advice and treatment.

Public television is one potential medium for dispersal of information. In this area it seems less accessible than commercial television. (Moore, Hofferth and Werthheimer, 1979). Other sources support school-based programs (Fielding, 1978; Garland, 1963; Hutchins, Kendall and Rubino, 1979; Russ-Efft, Sprenger and Beever, 1979). A school-based program will have to dispel a good many existing perceptions if it is to be successful. Sol Gordon has criticized school programs of sex education as dealing with the "plumbing" which is not really what the students are interested in. A course in biology will only be redundant. Teachers must be chosen with the greatest care for their knowledge, the tact that they exhibit and their ability not to use such a class as a forum for their own

beliefs, at either extreme. Nationally, Brown (1978) reported that 80 percent of Americans with children of high school and junior high school age favor instruction of sex education in the schools. Seventy percent favored including information on contraception.

When voluntary after-school sex education classes were to be instituted in Norfolk public secondary schools, parents were unanimous in their support for responsible sexual behavior. Agreement on how such behavior might be facilitated was lacking, however (Burling, 1981). Sadly, these classes were never instituted. Aggressive action will have to be taken locally if sex education classes are to be implemented. A potential nucleus from which to draw support for this effort is in the parents of former and present Coronado students and also the students themselves. An active advocacy group generated from volunteers and participants could be coordinated from the Coronado School.

One argument commonly advanced against the presentation of sex education and contraceptive information is that it leads to experimentation. This has been repeatedly refuted. Wagner, Fujita and Pion (1973) crosstabulated the level of sexual activity of high school males and females with their level of knowledge. There was no correlation between the two. They refuted the theory that sex education leads to experimentation. Zelnick and Kim (1982) came to the same conclusion. Based on data from a 1979 survey, they found that adolescents who had had sex education were no more likely to have engaged in sexual activity than those

who had not. Young women who had had sex education were less likely to become pregnant than those who had not had such a course. And in 1979, fewer black students than white had had such a course in school.

It is worth noting that a number of authors have voiced support for increased access of adolescents to abortion services (Jekel, 1977; Allen and Bender, 1980; Hollingsworth and Kreutner, 1980). The current political climate is clearly inhospitable to such a course of action.

When Jack Gravelly, Director of the Virginia NAACP, spoke at Norfolk State University, he said "Some of us think we're men because we can make a baby. Hell, that's nothing. They do that in laboratories now" (Lake, 1982). Preventing pregnancy among adolescents is not merely an issue of increasing contraceptive use or decreasing sexual activity. What is needed is a massive overhaul of society and a major development of self-esteem for numbers of teenagers, both female and male, who see empty futures for themselves and whose experience of the present reinforces the numbing emptiness they know.

A pebble thrown in a pond generates concentric circles. Though no circle touches the next, no circle is independent of the other. All must be considered together. The pregnant adolescent generates circles of concern in her educational system, her family, her society. It is these very institutions which have produced her. So to help her requires that each of these be modified.

The final conclusion of this dissertation is that the educational system at Coronado School offers the pregnant adolescents of Norfolk, Virginia, increasingly improved service. The other circles which envelope the pregnant adolescent remain to be modified.

BIBLIOGRAPHY

- Allen, James E., and Bender, Deborah. "Managing Teenage Pregnancies: Success and Failure in Two U.S. Communities." Health Care Management Review 5(2) (Spring 1980):85-93.
- Baldwin, Wendy. "Adolescent Pregnancy and Childbearing--Growing Concerns for Americans." Population Bulletin 31 (January 1976):3-31.
- Banks, James A. "Racial Prejudice and the Black Self-Concept." In Black Self-Concept, pp. 5-35. Edited by James A. Banks and Jean Grambs. New York: McGraw-Hill Book Company, 1972.
- Bardwick, Judith M. Psychology of Women: A Study of Bio-Cultural Conflicts. New York: Harper & Row, 1971.
- Berg, D.H. "Sexual Subcultures and Contemporary Heterosexual Interaction Patterns Among Adolescents." Adolescence 10 (Winter 1975):543-546.
- Berg, Marjorie; Taylor, Barbara; Edwards, Laura E.; and Hackanson, Erick Y. "Prenatal Care for Pregnant Adolescents in a Public High School." Journal of School Health 49 (January 1979):32-35.
- Berk, Richard A., and Brewer, Marilyn. "Feet of Clay in Hobnail Boots: An Assessment of Statistical Inference in Applied Research." In Evaluation Studies Review Annual, pp. 190-215. Edited by Thomas D. Cook, Marilyn I. DelRosario, Karen M. Hennigan, Melvin M. Mark, and William M. K. Trochim. Vol. 3. Beverly Hills: Sage Publications, Inc., 1978.
- Berk, Richard A., and Rossi, Peter H. "Doing Good or Worse: Evaluations Research Politically Reexamined." In Evaluation Studies Review Annual, pp. 77-90. Edited by Marcia Guttentag. Vol. 2. Beverly Hills: Sage Publications, Inc., 1977.

- Bernstein, Rose. "Gaps in Services to Unmarried Mothers." Children 10(2) (March-April 1963):49-54.
- Block, Robert W., and Block, Sharon A. "Outreach Education: A Possible Preventer of Teenage Pregnancy." Adolescence 15 (Fall 1980):657-660.
- Bronfenbrenner, Urie. "Some Familial Antecedents of Responsibility and Leadership in Adolescents." In Leadership and Interpersonal Behavior, pp. 239-271. Edited by Luigi Petrullo and Bernard M. Bass. New York: Holt, Rinehart, and Winston, 1961.
- Brown, Nina W. and Renz, Paul. "Altering the Reality Self-Concept of Seventh Grade Culturally Deprived Girls in the Inner City." Adolescence 8 (Winter 1973):463-474.
- Brown, R. C. "Our Baffling Teenagers: An Attempt to Understand Them." Transitions 1(1) (January 1978):2-3.
- Burbach, Cindy A. "Contraception and Adolescent Pregnancy." Journal of Obstetric, Gynecologic and Neonatal Nursing 9 (September/October 1980):319-323.
- Burling, Stacey. "Board Approves Voluntary Classes in Sex Education." Virginian Pilot (Norfolk), 20 March 1981.
- Burns, R. B. The Self-Concept in Theory, Measurement, Development and Behavior. London: Longman Group Ltd., 1979.
- Campbell, B. Kay, and Barnlund, Dean C. "Communication Patterns and Problems of Pregnancy." American Journal of Orthopsychiatry 47 (January 1977):134-139.
- Cannon-Bonventre, Kristina, and Kahn, Janet. "Interviews with Adolescent Parents: Looking at Their Needs." Children Today (September-October 1979):17-19.
- Card, Josefina J., and Wise, Laress L. "Teenage Mothers and Teenage Fathers: The Impact of Early Childbearing on the Parents' Personal and Professional Lives." In Teenage Sexuality, Pregnancy and Childbearing, pp. 280-301. Edited by Frank F. Furstenberg, Jr., Richard Lincoln, and Jane Menken. Philadelphia: University of Pennsylvania Press, 1981.
- Clark, Kenneth B. Dark Ghetto. New York: Harper Torchbooks, 1965.
- Coles, Robert, and Coles, Jane Hallowell. Women of Crisis. New York: Dell Publishing Co., Inc., 1978.

- Colton, Helen. Our Sexual Evolution. New York: Franklin Watts, Inc., 1971.
- Combs, Janet, and Cooley, William W. "Dropouts in High School and After School." American Educational Research Journal 5 (May 1968):343-363.
- Coopersmith, Stanley. The Antecedents of Self-Esteem. San Francisco: W. H. Freeman and Co., 1967.
- Copeland, Dorothy Zeigler. "Unwed Adolescent Primigravidas Identify Subject Matter for Prenatal Classes." Journal of Obstetric, Gynecologic, and Neonatal Nursing 8 (July/August 1979):248-253.
- Cowen, Emory L. "The Social Desirability of Trait Descriptive Terms: Preliminary Norms and Sex Differences." Journal of Social Psychology 53 (1961):225-233.
- Crane, John A. "The Power of Social Intervention Experiments to Discriminate Differences Between Experimental and Control Groups." In Evaluation Studies Review Annual, pp. 215-234. Edited by Thomas D. Cook, Marilyn L. DelRosario, Karen M. Hennigan, Melvin M. Mark, and William M. K. Trochim. Vol. 3. Beverly Hills: Sage Publications, Inc., 1977.
- Cronbach, Lee Joseph.; Ambron, Sueann Robinson; Dornbusch, Sanford M.; Hess, Robert D.; Hornik, Robert C.; Phillips, D. C.; Walker, Decker F.; and Weiner, Stephen S. Toward Reform of Program Evaluation. San Francisco: Jossey-Bass Publishers, 1980.
- Cummings, Judith. "Heading a Family: Stories of Seven Black Women." New York Times, 21 November 1983., sec. 1, p. B1.
- Curtis, Russell L. "Adolescent Orientations Toward Parents and Peers: Variations by Sex, Age, and Socioeconomic Status." Adolescence 10 (Winter 1975):483-494.
- Cutts, Catherine C. "Test Review--The Self-Directed Search." Measurements and Evaluation in Guidance 10 (July 1977):117-123.
- Davis, Allison. "American Status Systems and the Socialization of the Child." In Personality in Nature, Society, and Culture, pp. 567-577. 2nd ed. Edited by Clyde Kluckhohn and Henry A. Murray. New York: Alfred A. Knopf, 1967.
- deLissovoy, Vladimir. "Child Care by Adolescent Parents." Children Today 2(4) (July-August 1973):22-25.

- Dellas, Marie, and Gaier, Eugene L. "The Self and Adolescent Identity in Women: Options and Implications." Adolescence 10 (Fall 1975):399-408.
- Dott, Andrew B., and Fort, Arthur T. "Medical and Social Factors Affecting Early Teenage Pregnancy." American Journal of Obstetrics and Gynecology 125 (June 15, 1976): 532-536.
- Douvan, Elizabeth, and Adelson, Joseph. The Adolescent Experience. New York: Wiley, 1966.
- Dowling, Colette. The Cinderella Complex. New York: Summit Books, 1981.
- Edlin, Sara Boudin. The Unmarried Mother in Our Society. New York: Farrar, Strauss, and Young, 1954.
- Elder, Glen. H., Jr. "Structural Variations in the Child Rearing Relationship." Sociometry 25 (September 1962):241-262.
- Eley, Jean M. "The Effects of Counseling on the Self-Concepts of Pregnant Girls in the Norfolk, Virginia Public School Continuing Education Program for Pregnant Teens." Master's thesis, Old Dominion University, 1972.
- Elkind, David. The Hurried Child, Growing Up Too Fast Too Soon. Reading, Massachusetts: Addison-Wesley Publishing Co., 1981.
- Engel, Mary. "The Stability of Self-Concept in Adolescence." Journal of Abnormal and Social Psychology 58 (1959):211-215.
- Enos, Richard, and Hisanaga, Mary. "Goal-Setting with Pregnant Teenagers." Child Welfare 58 (September/October, 1979):541-552.
- Erikson, Erik Homburger. Childhood and Society. 2nd ed. New York: W. W. Norton Co., 1964.
- _____. "Identity and The Life Cycle." Psychological Issues 1 (1959):1-165.
- _____. Identity: Youth and Crisis. New York: W. W. Norton Co., 1968.
- Etzioni, Amitai. Modern Organizations. Englewood Cliffs, New Jersey: Prentice-Hall, 1964.
- Faber, Adele, and Mazlish, Elaine. How to Talk So Kids Will Listen and Listen So Kids Will Talk. New York: Rawson, Wade Publishers, Inc., 1980.

- Fantini, Mario D., and Weinstein, Gerald. The Disadvantaged: Challenge to Education. New York: Harper and Row, 1968.
- Festinger, Leon. A Theory of Cognitive Dissonance. Evanston, Illinois: Row Peterson, 1957.
- Field, Tiffany M.; Widmayer, Susan M.; Stringer, Sharon; and Ignatoff, Edward. "Teenage Lower-Class, Black Mothers and Their Preterm Infants: An Intervention and Developmental Follow-Up." Child Development 51 (June 1980):426-436.
- Fielding, Jonathan E. "Adolescent Pregnancy Revisited." New England Journal of Medicine 299 (October 1978): 893-896.
- Fischman, Susan H. "Delivery or Abortion in Inner-City Adolescents." American Journal of Orthopsychiatry 47 (January 1977):127-133.
- Fitz-Gibbon, Carol Taylor, and Morris, Lynn Lyons. How to Design a Program Evaluation. Beverly Hills: Sage Publications, Inc., 1978.
- Foster, Carolyn D., and Miller, Gary M. "Adolescent Pregnancy: A Challenge for Counselors." The Personnel and Guidance Journal 59 (December 1980):236-240.
- Fox, Greer Litton. "The Family's Influence on Adolescent Sexual Behavior." Children Today 8(3) (May-June 1979):21-25, 36.
- Fox, Greer Litton, and Inazu, Judith K. "The Impact of Mother-Daughter Communication on Daughter's Sexual Knowledge, Behavior, and Contraceptive Use." The Merril-Palmer Institute, 1979.
- Friedenberg, Edgar Z. The Vanishing Adolescent. New York: Dell Publishing Co., 1959.
- Friedman, Helen L. "The Mother-Daughter Relationship: Its Potential in Treatment of Young Unwed Mothers." Social Casework 47 (October 1966):502-506.
- Furstenberg, Frank F., Jr., and Crawford, Albert G. "Family Support: Helping Teenage Mothers to Cope." In Teenage Sexuality, Pregnancy and Childbearing, pp. 280-301. Edited by Frank F. Furstenberg, Jr., Richard Lincoln, and Jane Menken. Philadelphia: University of Pennsylvania Press, 1981.

- Furstenberg, Frank F., Jr.; Gordis, Leon; and Markowitz, Milton. "Birth Control Knowledge and Attitudes Among Unmarried Pregnant Adolescents: A Preliminary Report." Journal of Marriage and the Family 31 (February 1969):34-42.
- Garland, Patricia. "The Community's Part in Preventing Illegitimacy." Children 10(2) (March-April 1963):71-75.
- Gergen, Kenneth J. The Concept of Self. New York: Holt, Rinehart, and Winston, 1971.
- Glasser, William. Reality Therapy. New York: Harper Colophon Books, 1965.
- Goodman, Paul. Growing Up Absurd. New York: Vintage Books, 1956.
- Gottfredson, Gary D., and Holland, John L. "Vocational Choices of Men and Women: A Comparison of Predictors from the Self-Directed Search." Journal of Counseling Psychology 22 (January 1975):28-34.
- Gould, Shirley. Teenagers: The Continuing Challenge. New York: Hawthorn Books, Inc., 1977.
- Grady, Elaine Wolfe. "Models of Comprehensive Service--Hospital Based." Journal of School Health 45 (May 1975):268-270.
- The Guttmacher Institute. Teenage Pregnancy: The Problem That Won't Go Away. New York: The Guttmacher Institute, 1981.
- Hansen, James C., and Maynard, Peter E. Youth: Self-Concept and Behavior. Columbus: Charles E. Merrill, 1973.
- Hansen, Holger; Stroh, George; and Whitaker, Kenneth. "School Achievement: Risk Factor in Teenage Pregnancies?" American Journal of Public Health 68 (August 1978):753-759.
- Hartup, Willard W. Child and Adolescent Development. U.S. Department of Health and Human Services. NIH Pubn. No. 82-2304 (1981).
- Hayes, Richard L. "A Re-View of Adolescent Identity Formation: Implications for Education." Adolescence 17 (Spring 1982):153-165.
- Hendrixon, Linda L. "Pregnant Children: A Socio-educational Challenge." Phi Delta Kappan 60 (May 1979):663-666.

- Hodgson, Mary L., and Craner, Stanley H. "The Relationship Between Selected Self-Estimated and Measured Abilities in Adolescents." Measurement and Evaluation in Guidance 10 (July 1977):98-105.
- Hogan, Dennis P. and Kitagawa, Evelyn M. "Family Factors in the Fertility of Black Adolescents." Chicago, 1982. (Mimeographed.)
- Holland, John L. Making Vocational Choices: A Theory of Careers. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1973.
- Holland, John L. The Self-Directed Search. Palo Alto, California: Consulting Psychologists Press, Inc., 1979.
- Hollingsworth, Dorothy Raycroft, and Kreutner, A. Karen Kessler. "Sounding Board--Teenage Pregnancy: Solutions are Evolving." New England Journal of Medicine 303 (August 28, 1980):516-518.
- Horrocks, John Edwin, and Jackson, Dorothy W. Self and Role: A Theory of Self-Process and Role Behavior. Boston: Houghton-Mifflin Company, 1971.
- Hutchins, Francis L.; Kendall, Norman; and Rubino, John. "Experience With Teenage Pregnancy." Obstetrics and Gynecology 54 (July 1979):1-5.
- Iacovetta, R. G. "Adolescent-Adult Interaction and Peer Group Involvement." Adolescence 10 (Fall 1975):327-336.
- Idea Forum. "Special Clinics Help Pregnant Teens." Hospitals 53(11) (June 1, 1979):14.
- Jackson, Dorothy W. "The Meaning of Dating From the Role Perspective of Non-Dating Pre-Adolescents." Adolescence 10 (Spring 1975):123-126.
- Jekel, James F. "Appraising Programs for School-Age Parents." Journal Of School Health 45 (May 1975):296-300.
- _____. "Primary or Secondary Prevention of Adolescent Pregnancies?" Journal of School Health 47 (October 1977):457-461.
- Jencks, Christopher. Inequality. New York: Harper, Colophon Books, 1973.
- Johnson, Clara L. "Adolescent Pregnancy: Intervention into the Poverty Cycle." Adolescence 9 (Fall 1974):391-406.

- Jones, Arthur J.; Stefflre, Buford; and Stewart, Norman R. Principles of Guidance. 6th ed. New York: McGraw-Hill Book Company, 1970.
- Josselyn, Irene M. "The Unmarried Mother." In Sexual Behavior and the Law, pp. 356-378. Edited by Ralph Slovenko. Springfield: Chas. C. Thomas Publisher, 1965.
- Juhasz, Anne McCreary. "The Unmarried Adolescent Parent." Adolescence 9 (Summer 1974):263-272.
- Kammerer, Percy Gamble. The Unmarried Mother: A Study of Five Hundred Cases. Boston: Little, Brown, and Co., 1918.
- Kelley, Jerry L. "The School and Unmarried Mothers." Children 10(2) (March-April 1963):60-64.
- Kessler, William. "They Patrol City's Schools." Norfolk Compass, vol. 9, no. 97, 18 December 1983.
- Keyes, Ralph. Is There Life After High School? New York: Warner Books, 1976.
- Khlentzos, Michael T., and Pagliaro, Mary A. "Observations From Group Psychotherapy with Unwed ..others." American Journal of Orthopsychiatry 35 (July 1965):779-786.
- Kipnis, Dorothy M. "Changes in Self-Concepts in Relation to Perception of Others." Journal of Personality 29 (December 1961):449-465.
- Kitay, P. M. "A Comparison of the Sexes in Their Attitudes and Beliefs About Women." Sociometry (1940):399-407.
- Klein, Luella. "Antecedents of Teenage Pregnancy." Clinical Obstetrics and Gynecology 21 (December 1978): 1151-1159.
- _____. "Models of Comprehensive Service--Regular School-Based." Journal of School Health 45 (May 1975):271-273.
- Klerman, Lorraine V. "Adolescent Pregnancy: The Need for New Policies and New Programs." Journal of School Health 45 (May 1975):263-267.
- Kohlberg, Lawrence. "A Cognitive-Developmental Analysis of Children's Sex-Role Concepts and Attitudes." In The Development of Sex Differences. Edited by Eleanor E. Maccoby. Stanford, California: Stanford University Press, 1966.

- Komarovsky, M. "Cultural Contradictions and Sex Roles." American Journal of Sociology 52 (1946):184-189.
- Konopka, Gisela. "Requirements for Healthy Development of Adolescent Youth." Adolescence 8 (Fall 1973):291-316.
- Kvaraceus, William C. "Delinquents and Drop-outs: Some Implications for the Schools." In Conflicts in Urban Education. Edited by Sheldon Marcus and Harry N. Rivlin. New York: Basic Books, 1970.
- Lake, Marvin Leon. "NAACP Head Talks Tough at Norfolk State." Virginian Pilot (Norfolk), 10 September 1982.
- Lasseigne, Mary W. "A Study of Peer and Adult Influences on Moral Beliefs of Adolescents." Adolescence 10 (Summer 1975):227-230.
- Lefrancois, Guy R. Adolescents. Belmont, California: Wadsworth Publishing Co., 1981.
- Lende, Elizabeth; Gilmore, Esther; and Cavanaugh, Nina. "Vivamos! A Summer Program for Teenage Parents." Children Today 9(5) (September-October 1980):9-12.
- Levenson, Phyllis; Hale, James; Hollier, Marlene; and Tirado, Cathy. "Serving Teenage Mothers and Their High-Risk Infants." Children Today 7(4) (July-August 1978):11-15, 36.
- Lewis, Robert A. "Parents and Peers: Socialization Agents in the Coital Behavior of Young Adults." Journal of Sex Research 9 (May 1973):156-170.
- Liebow, Elliot. Tally's Corner. Boston: Little, Brown and Co., 1967.
- Lipsitz, Joan Scheff. "Adolescent Development." Children Today 8(5) (September-October 1979):2-7.
- Lyell, Ruth G. "Adolescent and Adult Self-Esteem as Related to Cultural Values." Adolescence 8 (Spring 1973):85-92.
- Lynn, David B. "A Note on Sex Differences in the Development of Masculine and Feminine Identification." Psychological Review 66 (March 1959):126-135.
- Mahoney, E. R., and Finch, M. D. "Body Cathexis and Self-Esteem: A Reanalysis of the Differential Contribution of Specific Body Aspects." Journal of Social Psychology 99 (August 1976):251-258.

- Mathes, Eugene W. and Kahn, Arnold. "Physical Attractiveness, Happiness, Neuroticism, and Self-Esteem." Journal of Psychology 90 (May 1975):27-30.
- Matteson, David R. Adolescence Today: Sex Roles and the Search for Identity. Homewood, Illinois: The Dorsey Press, 1975.
- McAnarney, Elizabeth R.; Lawrence, Ruth A.; and Aten, Marilyn J. "Premature Parenthood--A Preliminary Report of Adolescent Mother-Infant Interaction." Pediatric Research 13 (April 1979):328.
- Menken, Jane. "The Health and Social Consequences of Teenage Childbearing." In Teenage Sexuality, Pregnancy, and Childbearing, pp. 167-183. Edited by Frank F. Furstenberg, Jr., Richard Lincoln, and Jane Menken. Philadelphia: University of Pennsylvania Press, 1981.
- Mercer, Ramona T. "Teenage Motherhood: The First Year." Journal of Obstetric, Gynecologic and Neonatal Nursing 9 (January/February 1980):16-27.
- Miller, Elaine King, and Miller, Kimball Austin. "Adolescent Pregnancy: A Model for Intervention." The Personnel and Guidance Journal 62 (September 1983):15-20.
- Mitchell, J. J. "Moral Dilemmas of Early Adolescence." Adolescence 10 (Fall 1975):442-446.
- Mitnick, David P. "The Effects of Intensive Counseling on Low-Achieving, Secondary School Students: An Evaluation of the STAMA Counseling Program in Norfolk Public Schools." (Mimeographed.)
- Moore, Kristin A., and Burt, Martha R. Private Crisis, Public Cost. Washington, D.C.: The Urban Institute Press, 1982.
- Moore, Kristin A.; Hofferth, Sandra L.; and Wertheimer, Richard II. "Teenage Motherhood: Its Social and Economic Costs." Children Today 8(5) (September-October 1979):12-16.
- Musa, Kathleen E., and Roach, Mary Ellen. "Adolescent Appearance and Self-Concept." Adolescence 8 (Fall 1973):385-394.
- Muuss, Rolf E. Theories of Adolescence. 2nd ed. New York: Random House, 1968.
- Neff, Walter S. Work and Human Behavior. Chicago, Aldine Publishing Co., 1968.

- Nolan, James A. "An Evaluation of the Norfolk Adolescent Pregnancy Prevention and Services Program." Social Sciences Research Center, Norfolk State University, 1982. (Mimeographed.)
- Osofosky, Howard J. The Pregnant Teenager. Springfield, Illinois: Charles C. Thomas, 1968.
- Osofosky, Howard J., and Osofosky, Joy D. "Adolescents as Mothers: Results of a Program for Low-Income Pregnant Teenagers with Some Emphasis upon Infants' Development." American Journal of Orthopsychiatry 40 (October 1970):825-834.
- Pannor, Reuben. "Casework Services for Unmarried Fathers." Children 10(2) (March-April 1963):65-70.
- Paschal, Billy J., and Williams, Richard H. "Some Effects of Participation in a Summer Upward Bound Program on the Self-Concept and Attitude of the Disadvantaged Adolescent." The Journal of Negro Education 39 (Winter 1970):34-43.
- Patton, Michael Quinn. Utilization--Focused Evaluation. Beverly Hills: Sage Publications, Inc., 1978.
- Peer, Gary G. "The Antecedents of Self-Esteem (One of Education's Best-Kept Secrets)." Journal of Humanistic Education and Development 21 (September 1982): 18-21.
- Perkins, Richard P.; Nakashim, Ida I.; Mullin, Maureen; Dubansky, Linda S.; and Chin, Mary Lee. "Intensive Care in Adolescent Pregnancy." Obstetrics and Gynecology 52 (August 1978):179-188.
- Petrella, Janice M. "The Unwed Pregnant Adolescent--Implications for the Professional Nurse." Journal Of Obstetric, Gynecologic and Neonatal Nursing 7(4) (July/August 1978):22-26.
- Piers, Ellen V., and Harris, Dale B. "Age and Other Correlates of Self-Concept in Children." Journal of Educational Psychology 55(2) (1964):91-95.
- Piers, Ellen V., and Harris, Dale B. Manual for the Piers-Harris Children's Self-Concept Scale. Nashville: Counselor Recordings and Tests, 1969.
- Pilisuk, Marc. "Cognitive Balance and Self-Relevant Attitude." Journal of Abnormal and Social Psychology 65 (August 1962):95-103.
- Place, Dorothy M. "The Dating Experience for Adolescent Girls." Adolescence 10 (Summer 1975):157-174.

- Polsby, Gail K. "Unmarried Parenthood: Potential for Growth." Adolescence 9 (Summer 1974):273-284.
- Purkey, William Watson. Self-Concept and School Achievement. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970.
- Purkey, William W.; Raheim, Abdel; and Cage, Bob N. "Self-Concept as Learner--An Overlooked Part of Self-Concept Theory." Humanistic Education and Development 22 (December 1983):52-57.
- Rader, Gordon E.; Bekker, L. Demoyne; Brown, Laura; and Richardt, Cheryl. "Psychological Correlates of Unwanted Pregnancy." Journal of Abnormal Psychology 87 (June 1978):373-376.
- Ray, Lynda Y. and Johnson, Norbert. "Adolescent Suicide." Personnel and Guidance Journal 62 (November 1983):131-135.
- Rosenberg, Morris. Society and the Adolescent Self-Image. Princeton: Princeton University Press, 1965.
- Russ-Eft, Darlene; Sprenger, Marlene; and Beever, Anne. "Antecedents of Adolescent Parenthood and Consequences at Age 30." Family Coordinator 28 (April 1979):173-179.
- Ryan, William. Blaming the Victim. Rev. ed. New York: Vintage Books, 1976.
- Schachter, Stanley. The Psychology of Affiliation. Stanford, California: Stanford University Press, 1959.
- Schulz, David A. Coming Up Black: Patterns of Ghetto Socialization. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969.
- Scott, Patricia Bell, and McKenry, Patrick C. "Some Suggestions for Teaching About Black Adolescence." Family Coordinator 26 (January 1977):47-51.
- Sebald, Hans. "Adolescents' Concept of Popularity and Unpopularity--Comparing 1960 with 1976." Adolescence 16, (Spring 1981):187-193.
- Shah, Farida; Zelnik, Melvin; and Kantner, John F. "Unprotected Intercourse Among Unwed Teenagers." Family Planning Perspectives 7 (January/February 1975):39-44.
- Shenker, I. R.; Nussbaum, M.; Fisher, M.; and Katz, D. "A Survey of Adolescent Male Sexuality." Pediatric Research 13 (April 1979):329.

- Sherriffs, A. C., and Jarrett, R. F. "Sex Differences in Attitudes About Sex Differences." Journal Of Psychology 35 (1953):161-168.
- Shoop, Linda Lee. "Education for Parenthood." Children Today 8 (November-December 1979):278-283.
- Smith, Eleanor Wright. "The Role of the Grandmother in Adolescent Pregnancy and Parenting." Journal of School Health 45 (May 1975):278-283.
- Smith, Philip A. "A Comparison of Three Sets of Rotated Factor Analytic Solutions of Self-Concept Data." Journal Of Abnormal and Social Psychology 64 (May 1982:326-333.
- Sung, Kyu-Taik, and Rothrock, Dorothy. "An Alternate School for Pregnant Teenagers and Teenage Mothers." Child Welfare 59 (July/August 1980):427-436.
- Super, Donald E. The Psychology of Careers. New York: Harper and Row, 1957.
- Tuckman, Bruce Wayne. Evaluating Instructional Programs. Boston: Allyn and Bacon, Inc., 1979.
- Twiford, Rainer, and Carson, Peter. The Adolescent Passage. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1980.
- Tyrer, Louise B.; Mazlen, Roger G.; and Bradshaw, Lois E. "Meeting the Special Needs of Pregnant Teenagers." Clinical Obstetrics and Gynecology 21 (December 1978): 1199-1213.
- U.S. Department of Health, Education, and Welfare. Teenage Pregnancy--Everybody's Problem. DHEW Pubn. No. HSA 80-5619 (1977).
- Vincent, Clark E. Unmarried Mothers. New York: The Free Press of Glencoe, 1961.
- Wagner, Nathaniel N.; Fujita, Byron N.; and Pion, Ronald J. "Sexual Behavior in High School: Data on a Small Sample." Journal of Sex Research 9 (May 1973):150-155.
- Walters, Paul A., Jr. "Promiscuity in Adolescence." American Journal of Orthopsychiatry 35 (July 1965):670-675.
- Washington, Vivian E. "Models of Comprehensive Service--Special School Based." Journal of School Health 45 (May 1975):274-277.

- White, Lois E. "Lawrence G. Paquin Junior-Senior High School for Expectant Teenage Mothers," No. 457, 1980. (Mimeographed.)
- Whitley, Nancy, and Corbett, Margaret-Ann. "Sharon's Story." Journal of Obstetric, Gynecologic, and Neonatal Nursing 7(4) (July/August 1978):19-20.
- Wiley, David E. "Another Hour, Another Day: Quantity of Schooling, a Potent Path for Policy." In Evaluation Studies Review Annual, pp. 434-475. Edited by Marcia Guttentag. Vol. 2. Beverly Hills: Sage Publishing, Inc., 1977.
- Williams, Robert L., and Byars, Harry. "Negro Self-Esteem in a Transitional Society." The Personnel and Guidance Journal 47 (October 1968):120-125.
- Wylie, Ruth C. The Self-Concept. Lincoln: University of Nebraska Press, 1961.
- Young, Leontine R. Out of Wedlock: A Study of The Problems of the Unmarried Mother and Her Child. New York: McGraw-Hill, 1954.
- Zelnic, Melvin, and Kantner, John F. "Contraceptive Patterns and Premarital Pregnancy Among Women Aged 15-19 in 1976." In Teenage Sexuality, Pregnancy and Childbearing, pp. 112-125. Edited by Frank F. Furstenberg, Jr., Richard Lincoln, and Jane Menken. Philadelphia: University of Pennsylvania Press, 1981.
- Zelnic, Melvin, and Kanter, John F. "Sexual and Contraceptive Experience of Young, Unmarried Women in the United States, 1976 and 1971." In Teenage Sexuality, Pregnancy and Childbearing, pp. 68-92. Edited by Frank F. Furstenberg, Jr., Richard Lincoln, and Jane Menken. Philadelphia: University of Pennsylvania Press, 1981.
- Zelnic, Melvin; Kantner, John F.; and Ford, Kathleen. Sex and Pregnancy in Adolescence. Beverly Hills: Sage Publications, Inc., 1981.
- Zelnic, Melvin, and Kim, Young J. "Sex Education and Its Association with Teenage Sexual Activity, Pregnancy, and Contraceptive Use." Family Planning Perspective 14 (May/June 1982):117-126.
- Zener, Thelma Baldwin, and Schnuelle, Leslie. "Effects of the Self-Directed Search on High School Students." Journal of Counseling Psychology 23 (July 1976):353-359.

Zuckerman, Harry; Winsmore, Glovioell; and Alpert, Joel J.
"A Study of Attitudes and Support Systems in Inner-City Adolescent Mothers." Journal of Pediatrics 95 (July 1979):122-125.

Zongker, Calvin E. "The Self-Concept of Pregnant Adolescent Girls." Adolescence 12(48) (Winter 1977):477-488.