Paths to Adolescent Parenthood: Implications for Prevention

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Synopsis

Adolescent pregnancy and parenthood are increasingly common today and pose many problems for both the individual persons involved and society as a whole. For programs to address these issues successfully, factors associated with unintended pregnancy and resulting parenthood must first be identified and understood.

This paper is a review of current research on the factors associated with the four steps leading to an adolescent becoming a parent. Being an adolescent parent requires taking a particular path at four crossroads: becoming sexually active, not using or incorrectly using contraceptives, carrying rather than aborting a pregnancy, and parenting rather than placing a child for adoption. Much research in the last 15 years has explored adolescent childbearing, but many studies only compared adolescent parents to nonparents to reach conclusions about differences in these groups. This review focuses on recent studies that explore the four processes, or crossroads, separately and it excludes studies that generalize and overlap these processes.

Factors that influence adolescent behavior at multiple points on the path to parenthood indicate areas particularly relevant for preventive intervention. For instance, boyfriends exert influence at all four crossroads. Sexual activity and contraceptive use increase with longevity of relationships, yet closer relationships are less often associated with raising a child. Better general communication skills, and particularly an increased ability to discuss sexuality, increases use of contraceptives, and low educational and occupational aspirations appear to influence each successive turn toward parenthood.

This summary of current research serves to highlight those individual, family, dyadic, and social factors that exert great impact on adolescent parenthood by influencing young people at each of the four crossroads. These factors suggest potentially effective points for intervention to reduce the incidence of adolescent parenthood. However, poverty, unemployment, and racism also play central roles in early intercourse and childbearing, and any attempt at fundamental change must take these forces into account.

ADOLESCENT PREGNANCY AND PARENTHOOD are increasingly common today and pose many problems for both the individual persons involved and society as a whole. For programs to address these issues successfully, factors associated with unintended pregnancy and resulting parenthood must first be identified and understood.

Much research in the last 15 years has explored this area, but usually in such studies adolescent parents are compared only with nonparents to reach conclusions about differences in these two groups. Although such comparisons do have value, they do not address many important issues, and they may not lead to specific information useful in planning preventive programs. Demographers have historically depicted childbearing as the endpoint of "intermediate variables" or the processes of intercourse, contraceptive use or nonuse, gestation, and birth, which immediately precede parenthood (*1*). Similarly, adolescent parenthood may be thought of as the result of four steps or decisions that are consciously or unconsciously chosen:

1. to become sexually active,
2. to use or not to use contraceptives inadequately,
3. to deliver rather than abort, and
4. to raise the child rather than place it formally or informally for adoption.

The chart and table 1 show the proportions of young women taking each of the four decision paths. Zelnik and Kantner's 1979 survey of metropolitan-area adolescents indicated that half

of all unmarried female adolescents had had intercourse at least once and that 69 percent of 19-year-olds and 25 percent of 15-year-olds had had nonmarital sexual intercourse. These statistics indicate a substantial increase since a similar 1971 summary (*2*) and suggest that the proportion of the adolescent population involved is so large that sexually active teenagers can no longer be considered socially deviant.

Because of this sexual activity at early ages, the period of exposure to unintended adolescent pregnancy is longer today. The percentage of sexually active adolescents experiencing premarital pregnancy increased from 28 percent in 1971 to 33 percent in 1979 despite increased use of contraceptives during the same period. Twenty-five percent of unintentionally pregnant adolescents report unsuccessful or inconsistent use of contraceptives (*2*).

At the third step prior to adolescent parenthood—the pregnancy resolution—an abortion is now elected in 38 percent of all adolescent pregnancies, reflecting increased availability and acceptability of abortion. Only 49 percent of adolescents' pregnancies lead to live births; the remaining 14 percent end in miscarriage or stillbirth (*3*).

Finally, about 90 percent of the infants of adolescent mothers are raised by the mother, about 4 percent are placed for formal adoption (*4*), and the remaining 6 percent are informally adopted or raised by the extended family (*5*). As the chart indicates, 1 of 6 unmarried adolescent girls aged 15–19 has been pregnant, and 1 of 14 is raising a child premaritally conceived.

What do we know about the factors that create these startling statistics? What variables are related to becoming sexually active, to nonuse or misuse of contraception, to carrying rather than aborting a pregnancy, and to parenting rather than placing a child for adoption? The purpose of this paper is to summarize the research about factors that influence adolescents at these four crossroads and to suggest the programmatic implications of these findings.

Methodology

The volume of literature on adolescent sexuality is now so great that any review can only be selective and illustrative. This review concentrates on studies in the late '70s and early '80s and relies on summaries by others for earlier work (*6–8*). It focuses on studies that explore the four decision points separately and excludes many studies that generalize and overlap these points, thus potentially obscuring factors.

Table 1. Percentage distribution of black and white women aged 15–19 years, by race, at four decision points leading to parenthood

Decision	Total	White	Black
Sexual activity[1]			
Nonsexually active	50	53	35
Ever sexually active	50	47	66
Total	100	100	101
Contraception[1]			
Ever pregnant	33	29	45
Never pregnant	67	71	55
Total	100	100	100
Among the ever pregnant:			
Intended pregnancy	18	16	21
Unsuccessful contraception	25	30	17
Unintended pregnancy and unprotected intercourse	57	54	62
Total	100	100	100
Pregnancy resolution[2]			
Miscarriage or stillbirth	14	14	13
Delivery	49	48	52
Abortion	38	39	35
Total	101	101	100
Parenthood			
Parent	90	93	85
Informal adoption[3]	6	0	15
Formal adoption	[4] 4	[5] 7	0
Total	100	100	100

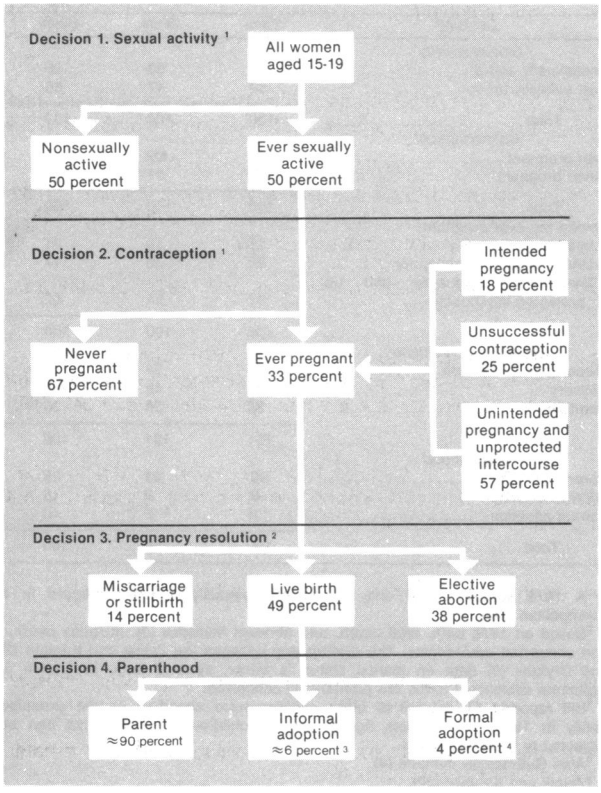
[1]A 1979 survey (*2*) of only premaritally sexually active teenagers in a metropolitan area.
[2]Based on 1978 birth, fetal death, and abortion statistics (*3*). Includes married and unmarried adolescents. The discrepancy between the Zelnik and Kantner (*2*) and Dryfoos (*3*) data on marital status is minor, since a large proportion of legitimate adolescent births are premaritally conceived.
[3]Hill reported 15 percent of black children were absorbed by the extended family in 1978. (*5*). Reliable figures on the children of adolescents can be expected to be much higher.
[4]Alan Guttmacher Institute (*4*).
[5]Zelnik and Kantner (*32*).
NOTE: Percentages were calculated from the cross-sectional studies cited and do not represent the experience of a true cohort. Totals not adding to 100 were the result of rounding. NA not available.

For example, a study in which pregnant adolescents are compared with nonpregnant sexually active adolescents would be included but not a comparison of adolescent parents with nonparents. Although such studies are useful to suggest hypotheses, the nonparent category frequently includes the nonsexually active, the users of contraceptives, and those not pregnant because of low fertility, infrequent intercourse, or simple luck, making interpretation difficult.

Also excluded were case studies, studies with samples of fewer than 35 subjects, those relying on clearly noncomparable groups such as a comparison of middle-class white contraceptors with poor, minority noncontraceptors or samples from programs serving particularly distressed adolescents.

Among the studies meeting these criteria, many of the sampling and design problems outlined by Chilman (*7*) persist, although progress is evident. An overview of the methodological issues indicates the state of the art and the confidence with which the findings presented can be generalized.

Percentage distribution of women aged 15-19 years at four decision points leading to parenthood



SOURCES:
[1] Based on a 1979 survey *(2)* of only premaritally sexually active teenagers in a metropolitan area.
[2] Based on 1978 birth, fetal death, and abortion statistics *(3)*. Includes married and unmarried adolescents. The discrepancy between the Zelnik and Kantner *(2)* and Dryfoos *(3)* data on marital status is minor, since a large proportion of legitimate adolescent births are premaritally conceived.
[3] Hill reports 15 percent of black children were absorbed by extended family in 1978. Reliable figures on the children of adolescents can be expected to be much higher. Figures for white children are estimated to be considerably lower than those for black children.
[4] Alan Guttmacher Institute *(4)*.

NOTE: The percentages were calculated from the cross-sectional studies cited and do not represent the experience of a true cohort. See table 1 for percentages by race.

The majority of studies in this review sampled clients of health and social service agencies, a circumstance that introduces a self-selection bias. Nevertheless, researchers in a number of recent studies have drawn large representative samples from geographically defined populations (*2*, *9–14*). While samples of fewer than 100 remain fairly common, they represent a smaller proportion of the total number of studies than they did in Chilman's review. Just as Chilman (*7*) found earlier, white and minority populations other than black are underrepresented, as are middle-class and nonmetropolitan area adolescents.

Variation due to socioeconomic status (SES) remains a problem. Most researchers sampled populations assumed to be of uniformly low SES (*15–19*). A number described the range of SES variation, but only a few controlled for these effects through matching or through the method of statistical analysis (*9,12,20,21*). However, more than 10 percent of the studies discussed in this paper applied multivariate analysis techniques to hold constant the effects of other factors which might distort the results (*12,14,19,21–27,60,62,68, 69*).

Only one longitudinal study was reviewed (*28*). Longitudinal rather than cross-sectional data are needed to establish causal relationships as opposed to simple associations between variables.

Despite these limitations in the quality of current knowledge, there has been substantial progress. It is useful to bring together the results of the studies in order to examine the relative frequency with which given variables are shown to have an important relationship with each of the steps preceding adolescent parenthood. It is to this task that this paper now turns.

Tables 2–5 summarize the research findings that surround each path. The research pertinent to each warrants a full discussion, including consideration of the various methods and theoretical perspectives. However, space does not permit more than a brief consideration of the factors. Since the data on adoption in table 5 are minimal, the last path is discussed in more detail. The discussion of the study findings listed in the tables focuses on those factors associated with all or several of the choices at the four crossroads. The recurrence of these factors suggests their substantial impact on the final step: adolescent parenthood.

Becoming Sexually Active

Table 2 summarizes the many factors associated with adolescent sexual activity. For example, teenagers with low SES are more likely than their peers with high SES to have experienced intercourse (*2*, *7*, *9*). Low educational attainment and metropolitan residence are also associated with sexual activity (*2*, *3*, *10*). A number of family factors have been found to be influential. Sexually active teenagers are more likely than their inexperienced peers to come from a large family or a one-parent household (*9*) and to have views which resemble more closely those of their peers than their parents (*29*). Among the influential social and psychological factors associated with increased sexual activity one finds lower grade point averages, a lack of sex education, and more traditional views of sex roles (*28*, *30*).

Sexually active adolescents are more likely to be

Table 2. Summary of research findings on factors associated with step 1—sexual activity

Factors	*Study findings*
Demographic	
Older age	Older adolescents are more likely to have had intercourse, although the trend is for first intercourse at younger and younger ages. Average age at first intercourse: females 16.2 years, males 15.7 years (*31*).
Black	40 percent more black than white teenagers have been sexually active (*2*), but fewer blacks than whites have many partners and fewer blacks have intercourse very frequently (*32*). Sexual activity is increasing most rapidly among white adolescents (*2*).
Metropolitan residence	50 percent of all metropolitan-area 15–19-year-olds had had intercourse in 1979 (*2*) compared with a 40-percent projection for all teens (*3*).
Low socioeconomic status	Low SES is associated with greater sexual activity and initiation of intercourse at younger ages than is high SES (*2,4,7*). Among urban blacks, residence in a segregated poverty area is associated with being twice as likely to experience first intercourse at any given age within the last month (*9*).
Low educational attainment of the adolescent female and of other women in the family.	In a low SES sample, adolescents have a greater likelihood of being sexually active when other females in their family have little education (*11*). Young women's own low educational attainment is also associated with greater sexual activity (*10*).
Male gender	Males at each year of age are 10 percent more likely than females to be sexually active (2).
Family	
1-parent household	Although several case-control studies report no such effect (*29,70*), others show 1-parent families to be associated with more sexually active teens (*7,9,37*).
Large family	Having a large family or a sister as a teenage parent role model is associated with greater sexual activity beyond the effects of poverty or education (*9*).
Sister as role model	ditto
Less supervision of dating behavior.	Dating adolescent women who report less parental supervision indicate more sexual activity (*9*).
Views resemble peers more than parents.	There is a greater likelihood of being sexually active when views resemble peers more than parents (*71*).
Less involved parents	Greater parental involvement decreases coital activity (*13*).
Working mothers	Female college students whose mothers work report more sexual activity but are also more likely to contracept than the sexually active whose mothers do not work (*29*).
Social and psychological	
Value and expect independence more and achievement less.	High school students who value and expect independence more than peers while anticipating less achievement are more likely than their peers to begin coital behavior within the next year (*28*).
Low grade average in school.	Males and females with low grade point averages are more likely to begin sexual intercourse during the following year (*28*).
Better self-esteem (for males) and lower personal aspirations.	Young male initiators of sexual activity have higher self-esteem than do older initiators (*28*). Early initiators of sex, both male and female, report lower aspirations (*13, 65*), less comfort with sex, and less enjoyment of first intercourse (*4*).
Unresolved gender role identity.	Adolescents with unresolved gender identity appear less likely to delay sexual activity (*25*).
Low religiosity	Church attendance is negatively associated with sexual activity (*7, 13, 28*).
Alcohol and marijuana use	The sexually active high school student engages in more unconventional behavior (*65*).
No sex education	Adolescents without sex education initiate sexual behavior earlier, but sex education neither increases nor decreases the overall rate of sexual activity (*30, 34, 65*).
Traditional view of sex roles.	Nonvirgins hold more stereotypical views of sex roles than virgins (*25*).

Table 2. Summary of research findings on factors associated with step 1—sexual activity—Continued

Factors	Study findings
Peer	
Involvement with peers	High involvement with peers overrides the effect of parent involvement for males and is associated with early sexual behavior for both sexes (*13*).
Peers as role models	A perception of frequent coital activity by peers or awareness of peer birth control use is strongly associated with greater sexual activity (*26, 29, 30*).
Dyadic	
Susceptibility to pressure from boyfriends.	Sexually active females are more suspectible to pressure from their boyfriends than those who are not sexually active (*12*).
A committed intimate relationship.	60 percent of women were going steady or engaged to their first sexual partner (*31*).
Couple identity	Having a couple identity renders women resistant to influence of peers and parents (*26*).
Sense of ability to influence the sexual relationship.	Sexually active women who feel that they have the ability to influence their sexual relationship have intercourse more often than women who feel that they have little influence (*26*).
Lack of ability to communicate.	The inability to say no and the perceived expectations of the partner increase sexual activity (*15*).
Factors not related to sexual activity	
Aid for families with dependent children (AFDC).	AFDC does not encourage sexual activity or lower the age at sexual initiation (*12, 24*).
Popularity	Popularity with same or opposite sex peers does not increase coital activity (*72*).
Sex education	Sex education does not increase the incidence of sexual behavior (*34*) and may delay first intercourse (*65*) and reduce pregnancies (*34*).
Young age at menarche	Studies report no association between age at menarche and age at first intercourse or pregnancy (*9, 24, 37*).

in a committed intimate relationship (*31*). However, Cvetkovich and Grote (*30*) found that sexually active girls tend to be those who are susceptible to pressure from their boyfriends. The perceived sexual activity of the peer group also influences the degree of sexual activity (*29, 30*).

Use of Contraceptives

Table 3 presents the factors found related to the use, nonuse, or inadequate use of contraceptives by sexually active adolescents. Again, low SES and large families predict a path that increases the chance of pregnancy. Young women who have knowledge of their siblings' or their parents' birth control experience, regardless of whether that experience was positive or negative, are more likely to contracept effectively (*15*). The younger a girl is at first intercourse, the less likely she will use or continue to use contraceptives (*32, 33*). Knowledge of sex or contraceptive methods increases use, as does having a high self-concept or being in school or employed (*34–36*). Ineffective communicators and women who hold more traditional views of female roles are less likely to contracept (*7, 36*). For this factor, a committed relationship reduces the risk of unwanted pregnancy by increasing contraceptive use (*16, 36*).

Delivery Rather than Abortion

Table 4, a summary of factors influencing whether a pregnant adolescent delivers or aborts, indicates that the likelihood of delivery is greater for older adolescents rather than younger, for high school dropouts, for members of large families and one-parent households, and for those who have a sibling who was pregnant as a teen (*15, 22, 37, 38*). Deliverers, in comparison with aborters, also display poorer school performance, lower self-confidence, more traditional views of sex roles, and are more likely to have a longer stable relationship with a boyfriend (*20, 39–41*). Although the longevity of the intimate relationship has an impact, the quality of the relationship does not (*20*).

Table 3. Summary of research findings on factors associated with step 2—contraceptive use

Factors	*Study findings*
Demographic	
White	Black teenagers have the higest percentage of unplanned pregnancies (*2,18*), and among those who do not want a pregnancy, blacks and Hispanics are less likely than whites to use contraceptives successfully (*2, 35*). However, more black contraceptors than white use prescription methods (*2*).
High SES	Nonwelfare recipients are more likely than welfare recipients to continue using contraceptives (*35*). Young women with more income and whose fathers have higher status occupations are more likely to continue to contracept than their lower SES peers (*35*).
Small families	Contraceptors who had a previous abortion are less likely to come from large families than deliverers, regardless of previous abortion (*73*).
Ever pregnant	Young women who have experienced a pregnancy are more likely to contracept than their never pregnant peers (*7*).
Family	
Working mothers	Young women from a low-income black and Hispanic, central city population are more likely to be consistent users and to continue to use over time if they have working mothers (*16, 36*).
Better relationship and greater involvement with mother.	Adolescent females using contraception early in their sexual careers report that their mothers were involved in their decision, and they report having a closer relationship and better communication with their mothers (*7*).
Knowledge of siblings' and parents' birth control experience.	Communication leading to knowledge of parents' and siblings' experiences with birth control is strongly related to timely initiation of contraception after first intercourse regardless of whether family members' experiences were positive or negative (*15*).
2-parent household	Young women with both parents present are more likely to be successful contraceptors (*35*).
Individual	
Belief in pregnancy risk and the long-term safety of the pill.	Contraceptors, unlike noncontraceptors, believe that there is an 80-percent risk of pregnancy, that it does not depend on luck, and that the pill will not hurt later fertility (*15*).
Social and psychological	
Sex education	Sex education which includes information about contraception is associated with greater use of contraceptives at first intercourse and with ever using contraceptives. The impact of sex education is greater for black teenagers than for white teens (*34*). Smaller, less representative samples suggested contraceptive knowledge does not predict behavior (*58*).
Acceptability of abortion	Consistent users are more likely than nonusers to indicate that they would have an abortion if pregnant and that their parents would assist them (*16*).
Age at first intercourse	The older an adolescent is at first intercourse, the more likely she will be to use contraceptives (*30,32*). Two out of five girls beginning intercourse before the age of 15 never use contraceptives (*33*).
Availability of family planning without parental consent.	SMSAs with greater availability of family planning services had fewer out-of-wedlock births (*41*). Availability of service without parental consent influences use (*4*). Confidentiality is the reason most cited for choosing a particular family planning agency. (*65*).
In school or working	Young women in school or working are more likely to continue contraceptive use over time (*36*).
High ego development	Contraceptors display higher ego development than do second trimester aborters or deliverers (*7, 38, 73*).
Knowledge of sex and contraception.	Successful contraceptors are more likely than their unsuccessful peers to have accurate information about sex and contraception, higher academic achievement, exhibit more planfulness (as exhibited by the Future Events Test) and have a higher self-concept (*35*).
High sense of individual control.	Adolescents with a strong sense of individual control over their lives are more likely to contracept (*68*).
More internal locus of control.	Contraceptors returning to clinics have more of a sense of internal control over their lives than do nonreturners (*68*).

Table 3. Summary of research findings on factors associated with step 2—contraceptive use—Continued

Factors	*Study findings*
Timing of initiation of contraception.	Teenagers who contracept prior to first intercourse are more likely to continue to contracept than are those who wait. Most delay more than 1 year, and many come for the first time because they suspect pregnancy (*74*).
Birth control convenient.....	Young women reporting that use of birth control is convenient are more likely to be still using contraceptives after 15 months (*36*).
High educational aspirations.	Adolescents continuing to contracept after 15 months are those with higher educational goals and more positive attitudes toward sex and birth control than are those who are no longer contracepting (*35*).
More positive attitudes toward sex.	.....do.....
Acceptance of sexuality.....	Contracepting adolescents are more likely to accept their sexuality than their noncontracepting peers (*8*).
Better communication	Effective contraceptors tend to be more effective communicators than those conceiving unwanted pregnancies (*36*).
Nontraditional female role...	Women with nontraditional views on female roles contracept more consistently than do their traditional peers (*7*).
Dyadic	
Partner less influential.....	Returnees to a family planning clinic report being less influenced by their partners than do nonreturnees (*68*).
Ability to discuss birth control.	Young women able to discuss birth control and to solicit their partner's opinions are more likely to contracept at first coitus and throughout the relationship regardless of their partner's opinion (*15, 26*).
Committed relationship	Young women who live with their partner or have one steady boyfriend are more likely to contracept (*3, 16, 30, 36*).
Regular sexual intercourse..	.....do.....
Sense of power and influence.	Young women with a greater sense of power and influence in their heterosexual relationship have intercourse less often and are more likely to contracept (*26*).
Peer	
Peers less influential	Contraceptors returning to a clinic also report that they are less influenced by their peers than are nonreturners (*68*).
Views not resembling peers.	Those with views less like their peers are more likely to use contraception consistently (*71*).
Factors not related to contraceptive use	
Current age.....	In samples of adolescents, there is no relationship between current age and contraceptive status although age at first intercourse is positively related to contraception (*19, 30, 35*) and older contraceptors are more likely to continue (*36*).
Attitudes.....	Early versus later birth control users report no difference in attitudes or gender roles (*65*).
Gender roles.....	.....do.....
Marital status	Marital status, ethnic background, and family income are not related to contraceptive success (*35*).
Family income or other demographic characteristics.	.....do.....

Formal and Informal Adoption

Recent research on those who formally place a child for adoption is limited, and research on informal adoption is nearly nonexistent. Most studies of the adolescent's choice of placing the child for adoption were performed in the '60s when adoption was more common because of the greater stigma of adolescent parenthood and the illegality of abortion; such research has limited value because of today's changed social context. Researchers in the 60s often concluded that those who chose adoption were more emotionally stable than those who became parents (*42*), but the authors of the few recent studies do not agree. Leynes (*23*), in a limited sample from a Booth Home, found those who became parents had lower levels of general functioning, but the parent sample may have been biased toward psychiatrically compromised individuals. Grow (*43*) found no difference in emotional health between the two groups of adolescent mothers.

Few researchers have investigated informal adoption or absorption of the child into the extended family, although one study funded by the Office of Adolescent Pregnancy Programs is in progress. The proportion of informal adoption occurring is difficult to document without legal records. Stack (*44*) describes the importance of this alternative in the black community. Hill (*5*) sees informal adoption as prompted by economic necessity. An estimated 15 percent of all black infants of unwed mothers are raised by the extended family, and the figure is probably even higher for children of adolescent mothers (*5*). The rate of temporary informal adoption by the extended family, such as during the period while the mother finishes school, is even more difficult to estimate, but this pattern may help explain why black adolescent parents are more than twice as likely to remain enrolled in high school 9 months after childbirth than white adolescents in the same situation (*45*) and why they are more likely to graduate (*46*). Informal adoptions occur among white families, but these are estimated to be much less frequent (*47*).

Variables Influencing the Paths Followed

The preceding discussions and tables 2–5 focus on factors that separately influence each of the four sets of options in unique ways. The following section describes variables that may affect the process of behavior through all these decision points.

Socioeconomic variables associated with the adolescent's childbearing and childrearing behaviors include racial differences and economic status. Except when specified, this discussion is limited to comparisons of black and white adolescents since information specific to other races or ethnic groups is minimal. When national data are classified as white or nonwhite, data on nonwhites are assumed to be largely for blacks.

While table 1 shows small differences between whites and blacks in a number of areas, two are particularly striking. A larger proportion of black adolescents are sexually active and, among the sexually active, blacks are more likely to become pregnant. These differences, however, are decreasing because of changes in white adolescents' behavior. The percentage of sexually active adolescent white women increased by 75 percent from 1971 to 1979, with a parallel increase among blacks of only 23 percent. The percentage of sexually active whites who became pregnant increased by 36 percent during the same period while the black percentage remained essentially unchanged (*2*).

A greater proportion of black sexually active teenagers than white experience unwanted pregnancy after using no contraception at all. Yet, black contraceptive users are more likely than white users to rely on the more effective prescription methods (*2*).

Contrary to some opinions, white and nonwhite teens differ little in the proportion of intended pregnancies—21 percent for blacks and 16 percent for whites (*2*). Nor do nonwhites in general consider abortion less acceptable than whites; 39 percent of white and 53 percent of nonwhite adolescents choose abortion (*3*).

Another potential area of difference is child raising. Seven percent of white infants and very few black infants are placed through formal adoption. Yet, because an estimated 15 percent of black infants are raised in the extended family (*5*), it is more likely that the white adolescent's child will be raised by the young mother than the black's.

Areas of no racial difference are just as important. Although a higher percentage of black adolescents are sexually active, there is little racial difference in promiscuity. Few adolescents of either race have multiple partners or frequent intercourse as measured by the frequency of intercourse during the month preceding the survey; whites have slightly higher percentages in these areas (*32*). Similarly, there seems little difference in basic

Table 4. Summary of research findings on factors associated with step 3—delivery rather than abortion

Factors	*Study findings*
Demographic	
Older age	The likelihood of delivering vs. aborting increases with age among adolescents (*27, 37* [1]).
Mexican American	Mexican American pregnant teenagers are more likely than black or white ones to deliver rather than abort (*22, 53*).
High school dropout	High school dropouts choose delivery over abortion more often than those in school (*22, 53*).
Low SES	Several studies report pregnant teenagers from families already receiving AFDC are more likely to deliver than abort (*22, 39, 53*). Aborters and their partners are more likely to come from middle class backgrounds than are deliverers (*39, 54, 56*).
Family	
Mother most influential if adopting.	The girl's mother influences the decision most if the decision is to adopt; however, if she is delivering and plans to keep the baby, the partner is more influential than the mother (*20,76*).
Good relationship with mother.	In a black inner-city sample, deliverers felt more understood by their mother and shared more feelings with her than did aborters (*39*).
Sibling role model	Deliverers and their partners are more likely than aborters or their partners to report siblings who were pregnant as teens (*9, 15, 54, 55*). Likewise, aborters are more likely than deliverers to report a sister who terminated a pregnancy (*39*).
1-parent household	Fewer deliverers than aborters come from intact families, and deliverers are more likely to come from large families (*9, 38, 56, 57*).
Large families	do
Social and psychological	
Religiousness	Greater religiousness is associated with a greater likelihood of delivering (*39*).
Conservative re abortion	Deliverers held more conservative views on abortion and reported more interest in babysitting (*20, 39*).
Interest in babysitting	do
Desired pregnancy	More deliverers than aborters reported wanting the pregnancy (*20*).
Poorer school performance	Deliverers earn poorer grades and have more difficulties with school than do aborters; aborters resemble the average students (*22, 39, 77*).
Anxiety and sleep disturbance.	Adolescents who are mothers display more anxiety, rumination, and sleep disturbance (signs of depression) than do aborters (*55, 62*).
Low perceived confidence	Deliverers report lower perceived confidence than aborters regardless of age or race (*40*).
Low educational and occupational aspirations.	Deliverers' educational and occupational aspirations are lower than those of aborters. Aborters and their partners are more likely to define the pregnancy as a crisis that poses a threat to their future goals (*27, 39*).
Low ego development	Deliverers function at a lower level of ego development that aborters (*76*). First trimester aborters had higher ego development. Second trimester aborters and term deliverers were similar (*38*).
Poorly developed future perspective.	Contraceptors and the currently pregnant adolescent mothers have poorer conceptualizations of the future than do aborters. Those with the most external locus of control and the most traditional views of sex roles are the least aware of the implications of childrearing for their future or their child's future and tend toward passive inaction (*48*). Deliverers exhibit more traditional views of sex roles (*41*).
External locus of control	do
Traditional views of sex roles.	do
Passivity	do

Table 4. Summary of research findings on factors associated with step 3—delivery rather than abortion—Continued

Factors	*Study findings*
Lack of contraception.....	Those choosing delivery were less likely to have been using contraception (*20, 41*).
Peer	
Peers are role models	More deliverers than aborters report knowing 1 or more single teenage mothers (*15, 20, 22*).
Dyadic	
Partner not in school	In 1 study the partners of deliverers were more likely to be high school graduates (*22*), while other researchers reported more deliverers than aborters related that their partner had dropped out of school and was working full time (*39, 78*).
Longer, more stable relationship with partner.	Deliverers report longer, more stable relationships than do aborters (*39*). However, these relationships differ only in longevity and not in their closeness or degree of sharing (*20*).
Partner most influential	For deliverers, the partner has the greatest influence on the pregnancy resolution decision with girlfriends, mother, physician, clergyman, and father having decreasing degrees of influence. Aborters receive support for their decision from their physician, best girlfriend, mother, father, and lastly from their partners (*20*).
Factors not related to sexual activity	
Black or white race.....	About the same proportions of black and white teenagers abort their pregnancies (*3*).
Age at menarche.....	Aborters are no different from deliverers in age at menarche or in the reported relationship between the young mother and her father (*39*).
Relationship with father.....	.....do.....
Ego resilience.....	No difference appeared between aborters and deliverers on the Block Ego Resilience Test (*20*).
Girl friends' advice	Both deliverers and aborters report girlfriends to be the second most influential person in their decision (*20*).

[1] Direct comparison of delivery and abortion rates by age suggests adolescent deliverers are more likely to be aged 16–17 than they are to be younger or older (*75*), but this statement is misleading. A pregnancy at age 14 would be delivered at age 15 or aborted at age 14. When these rates are recalculated, based on age at conception rather than age at outcome, the proportion of deliveries increases directly with age (*37*).

values concerning parenthood in adolescence. Some authors have concluded young motherhood is more acceptable among blacks (*8, 48*), and black families do seem to provide greater support to these adolescents than white families (*11*). Other researchers, however, have documented that adolescent childbearing is considered a social disgrace and economic hardship by lower class black families (*49, 50*).

These racial differences have been interpreted in various ways. Some authors explain black adolescent motherhood as a means to achieve adult status. Further, an environment with dim prospects for marriage associated with high unemployment and less hope for economic or educational success is said to provide no motivation to avoid parenthood (*9, 44*), and parenthood allows the adolescent to assume a respected adult role (*48*).

When the racial differences are examined at the different decision points, however, it can be seen that black adolescents are not significantly more likely to intend pregnancy even though a higher percentage are sexually active and a lower percentage take active steps to prevent pregnancy. It may be that it is sexual activity itself, rather than parenthood, that is viewed as a means to achieve adult status. The greater risk of pregnancy among black adolescents appears to result from a passive decision not to contracept. Among those who are pregnant, the active choice of parenthood is actually less common among black adolescents than among white (table 1).

The racial differences may be largely due to the effects of poverty, since higher percentages of blacks experience extreme economic and social hardships. Black adolescents in central cities report higher rates of sexual activity than suburban blacks (*2*). In one study, virgin black adolescent

Table 5. Summary of research findings on factors associated with step 4—being a parent rather than placing a child for adoption (placers)

Factors	*Study findings*
Demographic	
Young age	Parents tend to be younger than placers. Parents are more likely than placers to live in metropolitan areas (*43*).
Metropolitan residence	do
Low SES	Placers tend to have a higher SES than do those choosing to raise the child (*23*).
Family	
Relationship with parents	Women raising their own infants have relationships with their parents that meet their needs less well than do placers (*42*) and report that their parents have less influence on their decision (*23*).
Parents less influential	do
Intact homes	Parents have a greater chance of coming from a 1-parent home (*43,66*).
Social and psychological	
Low level of functioning	Two judges rated parents as functioning at a lower level than placers (*23*).
Traditional values about abortion and family life.	Parents hold less traditional views about abortion (that is, more favorable) and family life than do placers (*43*).
Less education	Parents have less education and are less likely to be enrolled in school than those who place for adoption (*43, 66*).
Not in school	do
Dyadic	
Longer relationship with father of baby.	Young women who parent tend to have known the putative father for more time and to be more influenced by him than are placers (*23, 43*).
More influence from partner.	do
Factors not related to placing vs. parenting	
Psychopathology	There is no difference in the psychological health of parents compared with placers (*43*) except in 1 possibly biased sample (*23*).

women in segregated, high poverty areas in Chicago were compared to a representative sample of Chicago's virgin black teens. Those from high poverty areas were twice as likely, at any given age, to experience first intercourse within a given month even when controlling for other factors (*9*). They also reported pregnancy rates 54 percent higher than did the representative sample of Chicago's black teens. These findings suggest that life circumstances and community factors greatly influence rates within the black population.

Racism influences the future possibilities of young black women. Despite the greater academic achievement and career aspirations of black teenage mothers (*46, 51*), their white peers attain higher incomes and occupational status. The greater incidence of stable marriage among white teens and the relatively greater earning power of white males decreases the poverty of young white mothers (*52*).

Poverty is associated with early sexual activity, decreased use of contraceptives, and lower abortion rates, regardless of race. Numerous studies document that the availability of welfare support for single parents does not encourage either sexual activity or adolescent pregnancy (*7, 12, 24*), although there is some evidence that pregnant adolescents in families already on welfare tend to have lower abortion rates (*53*).

Some have argued further that these effects of poverty may actually be due to the influence of an associated sense of lack of control over one's own destiny and a lack of opportunity to be successful in adult roles (*6*).

Research has shown that a number of interpersonal factors influence the path followed at all

points, including the adolescent's peer and other role models, relationships with the partner, membership in a single-parent family, and interpersonal communication skills.

The adolescent woman is strongly influenced by the real and perceived practices and values of her peer group at all four of the points. If the group is perceived as sexually active, she is more likely to be sexually active (*26, 29, 30*); if the group includes adolescent parents, she is more likely to carry the child to term (*15, 20*).

Parent and sibling role models have a similar influence. For example, if the mother or sister has had a child out of marriage and is raising it, the adolescent is more likely to initiate sexual activity (*9*) and to keep and raise the child if pregnancy occurs (*9, 15, 54, 55*). If the adolescent is aware that a sister or the mother has used a birth control method, she is more likely to use a contraceptive method herself, even if the role model's experience with birth control was unpleasant or unsuccessful in preventing pregnancy (*15*).

A special kind of family influence is that of the single-parent (usually mother) family. In such situations the adolescent daughter is more likely to take all four paths that lead to raising a child (*7, 9, 35, 37, 38, 56, 57*).

The adolescent's relationship with her partner influences all four branches in the path as well. As the length of the relationship increases, so does the likelihood of both sexual activity and the use of contraceptives (*16, 30–32, 36*). Adolescents in longer relationships who are pregnant are more likely to deliver and raise an infant (*20, 39*), but relationships reported to be closer emotionally more often result in contraceptive use. However, closeness is unrelated to the abortion or delivery decision (*20*). That is, while longevity increases sexual activity, contraceptive use, and the likelihood of delivering if pregnancy occurs, emotional closeness is associated only with contraceptive use.

The adolescent's interpersonal communication skills have considerable influence. Better communication skills are generally associated with greater use of contraceptives (*36*), and an increased ability to discuss sexuality with the partner is associated with more frequent intercourse and increased use of contraception (*15, 26*).

Social and psychological factors that influence the direction taken by the adolescent include the decision-making process used and the adolescent's educational and occupational aspirations, sense of the future, and her knowledge, attitudes, and beliefs.

'What variables are related to becoming sexually active, to nonuse or misuse of contraception, to carrying rather than aborting a pregnancy, and to parenting rather than placing a child for adoption? The purpose of this paper is to summarize the research about factors that influence adolescents at these four crossroads . . .'

The decision-making process influences the path taken, although the studies considered in this review have not focused on this issue extensively. Quite possibly, it is not a lack of knowledge in most cases but a lack of the cognitive and behavioral skills necessary to use this knowledge constructively in decision-making that results in a failure to make deliberate decisions at all four points (*58*). In order to choose a course of action consciously, the adolescent must be able to personalize and apply information to her own position.

Whereas adult pregnant women, when faced with a decision about abortion, generally consider their ability to care for the child, adolescents tend to be more concerned with the effects of the decision on parents and to attribute the decision to factors beyond their control (*59*). As the adolescent grows older, the ability to consider the future consequences of decisions increases (*60*). It has also been demonstrated that pregnant adolescents have difficulty in understanding the relationship between frequency of intercourse and the risk of pregnancy, even after education in this area (*17*).

Many young people make choices about sexual behavior without the ability to weigh the consequences of their choices. Adult behavior concerning fertility is often characterized by risk taking and an absence of conscious rational choice (*61*), but adolescents are at a greater disadvantage because of their immaturity.

Although little research has been done on factors involved in adolescent patterns of decision making, many authors recognize the need to view fertility decisions within the context of the normal development of adolescents rather than in a context of deviant behavior (*7, 8, 42, 62–64*).

Low educational or occupational aspirations are associated with increased adolescent sexual activity

(*13, 28, 65*), less use of contraceptives (*35*), lower likelihood of abortion (*27, 39*), and greater likelihood of raising the child rather than placing it for adoption (*43, 66*). The impact of low aspirations also increases with each successive step toward parenthood. In one longitudinal study, for example, poor academic performance was shown to precede and be associated with even the decision to begin sexual activity (*28*).

A similar personal factor is the adolescent's sense of a positive future. Young women who value achievement highly, are future oriented, and have a sense of influence over their own future tend to initiate sexual activity at a later age (*13, 28, 65*), to use contraception more consistently (*7, 67, 68*), and to abort more often (*39, 62*) or place for adoption an infant from an unintended pregnancy (*43, 66*).

Finally, the individual's knowledge, attitudes, and beliefs related to sexuality influence behavior, but this influence is less significant than many other factors. Beliefs about abortion, for example, are not highly correlated with actual practices; in one study, 90 percent of women who said they should choose abortion actually did so, and 64 percent of those who said they should not abort actually did so (*22*). These values also seem to change readily, as evidenced by 50 percent of women who chose abortion deciding to deliver a subsequent child, and 50 percent of previous deliverers later choosing to abort (*20*).

Sex education does not encourage sexual activity, but it may decrease the risk of pregnancy because the knowledge of contraceptives increases the likelihood of their use (*34*); however, even this association is smaller than was once expected. Informed adolescents have the knowledge needed to make more deliberate decisions, but other skills and circumstances also influence the decision-making process.

Conclusions

Primary prevention of adolescent parenthood requires interrupting the sequence of steps leading to parenthood. Interventions should encourage rational decision-making, which may mean a delay in first intercourse. They can encourage young people to recognize when they want to say no and to develop the skills to do so, as well as encouraging the timely recognition and acceptance of the choice of being sexually active and the use of contraceptives early in their sexual careers.

Early contraceptive use alone could have a profound impact. One-half of all initial premarital adolescent pregnancies occur in the first 6 months of intercourse, with more than one-fifth occurring in the first month (*33*).

This summary of current research serves to highlight factors that exert great impact on the incidence of adolescent parenthood at each of the four preceding crossroads. These factors suggest potentially effective points for intervention to reduce the incidence of adolescent parenthood. The following recommendations were drawn from these recurring factors:

1. Because parents continue to influence adolescent behavior greatly, parental involvement and communication should be strengthened to help adolescents become more responsible. Programs are needed to help parents, often less informed than their teenagers (*3*), become better informed and comfortable with discussing sexuality and contraception.
2. Because peers have such an impact on adolescent behavior, particularly on the initiation of sexual activity, programs should assist adolescents to identify and examine peer pressure and explore ways to make individual, deliberate decisions.
3. Programs that encourage developing a sensitivity to the feelings and needs of the opposite sex and to resolving conflicts between couples should also lead to more responsible behavior and choices.
4. Programs that foster the individual's sense of self-worth, awareness of one's own feelings, and assertiveness will help adolescents learn to act in their own interests with a stronger sense of control over their lives.
5. Because of the important role of the adolescent male at all four decision points, all programs should include males as well as females. Adolescent males presently are less aware of the risks of pregnancy, less informed about contraceptives, only half as likely to have discussed contraceptives with parents, less supportive of the use of contraceptives than females at the same age, and more likely to learn about sexuality in the classroom than from a variety of sources (*56*). Like females, males are influenced by their sense of control over their lives and their orientation to the future (*69*). The male also influences the female's choice at all four decision points, more strongly than any other factor in long-lasting relationships, and the result of this influence often persists long after his actual involvement ends. Therefore, it is essential that males be included in all prevention programs.

6. Sex education programs have demonstrated value and should be available for both adolescents and adults. Parental involvement should be encouraged to stimulate discussion and to reduce the likelihood of reinforcement of misinformation by parents.

7. Because academic difficulties are associated with a greater risk of becoming an adolescent parent, programs can address several issues in the school environment. Students should learn how to cope with feelings of frustration and failure. High aspirations and achievement levels are also important, but their impact will be minimal if employment and economic opportunities are lacking, and expectations are therefore frustrated (*52*). The ideal prevention program would assist high-risk adolescents to move more easily into the labor force.

While none of these recommendations are new, pulling together the empirical data related to the sequence of events leading to early parenthood provides new direction and validation. We have known for some time that available and accessible contraceptives and abortion services reduce the incidence of premature parenthood. But the data supporting the importance of factors such as the influence of peers, communication skills, or a sense of self-worth have appeared less convincing. Viewing the current findings related to each path and exploring the factors that connect the four paths validate the empirical base for these preventive approaches.

Although the research literature available suggests important aspects for inclusion in intervention programs, it only hints at a broader issue. The origins of the problem and, therefore, the dimensions of the task of prevention lie in an environment that discourages a positive view of the future. Change requires the participation of the social institutions that form the fabric of the adolescent's community—the family, schools, churches, and the welfare and health systems—as well as cooperation among business, industry, and education to prepare young people for real opportunities.

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The Healthy Mothers, Healthy Babies Coalition: Four Years of Progress

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Synopsis

The Healthy Mothers, Healthy Babies Coalition is a cooperative venture of 80 national voluntary, health professional, and governmental organizations committed to improving maternal and infant health through education. In the 4 years since its creation, the Coalition has grown in scope and size, established an Executive Secretariat, and begun activities directed at breastfeeding, substance use, injury prevention, genetics, oral health, adolescent pregnancy, and motivation of low-income women. National Coalition educational materials on these subjects are produced by representatives of the national organization members contributing time and their organization's resources. In addition, member organizations sponsor the publication of a quarterly newsletter and other coalition-building materials including an exhibit, slide-tape show, television production kit, and a community organization guide.

Combined with State and community enthusiasm for the Healthy Mothers, Healthy Babies concept, technical assistance from national members has led to the formation of coalitions in many States—more than 40 States have designated contacts with the national coalition. The State coalitions have undertaken a variety of campaigns; the achievements in 12 States are outlined. Of high priority during the next year will be support of these developing State coalitions through co-sponsorship of regional conferences.

The national Coalition will also continue to recognize innovative programs through annual national achievement awards. The Healthy Mothers, Healthy Babies Coalition is dedicated to continued development and promotion of educational programs for pregnant women, those planning a pregnancy, and their caregivers until 1990, in support of the health Objectives for the nation.