

THE mother's impact on her teenage daughter's sexual behavior has been conceptualized in terms of direct and indirect sources of influence. Expectations that mothers who communicate sex information to their daughters; mothers who monitor situational and behavioral aspects of their daughters' social activities; mothers who have established supportive and open relationships with their daughters; and mothers who have not been involved in non-marital sexual experiences are less likely to have sexually experienced daughters were tested with a sample of 449 mothers and their 14- to 16-year-old daughters. When background factors are controlled, the findings indicate that indirect forms of sexual socialization have a greater impact on teenage sexual experience than direct forms. Findings relating background factors to sources of maternal influence and interrelationships among maternal sources of influence are also presented.

## **Maternal Influence on the Sexual Behavior of Teen-Age Daughters**

### **Direct and Indirect Sources\***

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Research on the causes of adolescent childbearing has become an important part of the national response to teenage pregnancy in the United States. In reviewing factors associated

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with premarital sexual behavior among adolescents, Chilman (1978) identifies the quality of the parent-child relationship as a major predictor of teenage sexual involvement. Fox and Inazu (1978) suggested more explicitly that the mother-daughter relationship was the only familial relationship of much significance in accounting for teenage sexual knowledge and behavior. An important question needing to be addressed concerns the nature of maternal involvement in the sexual socialization of adolescent daughters.

Several studies on sources of teenagers' sexual knowledge clearly indicate that although sex education within the home is infrequent, to the extent that it does occur, mothers are the primary sources of sex information (Elias, 1978; Fox and Inazu, 1978; Gebhard, 1977; Spanier, 1976; Warren and St. Pierre, 1973). Studies assessing the impact of mother's sexual communication on college-age young adults indicate that learning about sex initially within a family context, regardless of the person from whom it is learned, is associated with a later age of sexual initiation and fewer premarital sexual partners (Lewis, 1973; Spanier, 1977).

In addition to influencing their daughters' sexual behavior through direct instruction or transmission of information, mothers can act as agents of social control through such activities as supervising or monitoring their daughters' dating behavior, setting curfews, and the like. Jessor and Jessor (1974), for example, found that the more supervision exercised by the mother the less the problem behavior (including sex) for both male and female children.

Aside from the direct impact of mothers on teenage sexual behavior, mothers can be expected to influence their daughters' sex behavior indirectly through their presence and availability as a source of socioemotional support. Daughters whose socioemotional needs are met by their mothers may be less likely to seek ways of establishing intimate relationships to fulfill these needs. In addition, the daughter is more likely to internalize her parents' standards and values if she respects and likes them and feels she is respected and liked in return. Evidence from several studies suggests that non-

virgins are more likely to have poorer communication with their mothers (Chilman, 1974; Fox and Inazu, 1979; Kantner and Zelnik, 1972), to be lower on parental involvement (Ladner, 1971; Miller and Simon, 1974; and to have less affectionate relationships with their mothers (Jessor and Jessor, 1974). Based on these studies, one would expect the quality of the mother-daughter relationship to be negatively related to sexual experience.

Finally, the mother's past and current marital and non-marital sexual activities may provide a model for the daughter's own behavior. Studies have shown, for example, that teenage mothers are more prone to have daughters who themselves become teenage mothers (Card, 1978; Presser, 1975). Wilson (1979) found that girls whose mothers were teenage mothers and whose mothers gave birth to them illegitimately were more likely to become premaritally pregnant.

Based upon this literature, the mother's influence on her daughter's sexual behavior is conceptualized in terms of direct and indirect influences as manifest in four separate roles. The mother's roles as information source and as social supervisor are treated as direct influences, while the mother's roles as a source of socioemotional support and as a role model for nonmarital sexual activities are treated as indirect influences. In this article, data will be presented on the relative impact of the mother's performance in each of these roles on the daughter's sexual activity. Mothers who communicate sex information to their daughters, mothers who monitor situational and behavioral aspects of their daughter's heterosocial activities, mothers who have established supportive relationships with their daughters, and mothers who themselves have not engaged in nonmarital sexual activities are expected to have daughters who are sexually inexperienced.

Because the literature on teenage sexuality suggests rather consistently that girls who are older, who are black, who are in female-headed households, from less religious families, and from families with lower incomes tend to be more sexually active (Barglow et al., 1968; Cvetkovich and Grote, 1976; Jessor and Jessor, 1975; Kantner and Zelnik, 1972, 1973;

Vener and Stewart, 1974), it is necessary not only to examine the relationship between background factors and sexual activity, but to control the background variables in assessing the impact of maternal involvement on teenage sexual activity.

## METHOD

### DATA

The analysis for this article is based on a sampling of 449 mother-daughter pairs interviewed in the spring of 1978. Girls between the ages of 14 and 16 from 7 Detroit high schools were stratified by race and randomly selected for inclusion in the study. Schools which provided maximum variation on race and social class and which represented different school districts in the city were selected as sampling sites. (A more detailed description of the sample is contained in Fox and Inazu, 1979).

### MEASUREMENT OF VARIABLES

Five background variables—race, head of household, daughter's age, relative family income, and family religiosity—are examined in this article. Race (black, white), head of household (mother, other), and daughter's current age (fourteen, fifteen, or sixteen) are single-item discrete variables. Relative family income is a measure of total family income divided by number of occupants in the household. Adults were counted as one unit, and children seventeen years or younger were counted as half a unit. Family religiosity is a composite measure of the extent to which families share in religious rituals at home. Scores on four religious activities (reading the Bible, saying grace at mealtimes, praying together as a family, and singing hymns together) were summed to create an additive index with scores ranging from 4 (never) to 16 (very often).

The mother's role as a provider of sex information is measured by two sets of variables, early and current sexual communication. These measures were based on the daughter's reports rather than the mother's on the presumption that the daughter's perception of communication is more important in affecting her sexual status than the mother's perception of communication. Moreover, mother and daughter reports on single-item questions were generally positively and significantly correlated. Early sexual communication is measured by whether six sex-related topics (menstruation, dating, sexual morality, conception, sexual intercourse, and birth control) were discussed by mother and daughter by the time the daughter was twelve and a half years old. These six items measure the mother's role as an information provider prior to the initiation of coital activity on the part of the daughter. The second group of items measuring mother's role as information provider reflects frequency of recent communication. Each item measures whether four topics (dating, morality, sexual intercourse, and birth control) were discussed ten or more times by the mother and daughter in the six months prior to the interview. This second set of items indicates the frequency of recent discussions of sex-related topics between the mother and daughter. For some daughters, these discussions predate their sexual initiation, and for others the discussions postdate their initiation into sexual activity. Thus, while the first set of communication items allows us to test for an effect of early mother-daughter discussions on later sexual behavior, the second set of items allows us only to look at the association between the daughter's sexual activity and the frequency of concurrent discussions of sex-related matters between mother and daughter.

The mother's role as a social control agent was measured by the mother's reports of how often curfew rules are established and enforced, how often someone gives permission when the daughter asks to go out, how often someone waits up for the daughter to come in at night, how often someone asks the daughter where she has been and if she has had a

good time, and how often someone tells her what she can or cannot wear on a date. These items are scored so that a high score indicates more frequent supervision.

The mother's role as a source of socioemotional support is measured with MDREL, a 9-item summed index which reflects the daughter's assessment of the overall quality of one dimension of her relationship with her mother. MDREL was derived from a factor analysis of 23 Likert-type statements the daughter responded to, and it measures the daughter's perception of the presence or absence of open communication, uncertainty, and ambiguity in defining her relationship with her mother, and her hesitancy in approaching her mother.<sup>1</sup> MDREL is scored so that high scores indicate more positive relationships. The items comprising MDREL and their factor loadings are shown in Appendix A.

The mother's role as a modeling agent is measured by two variables, the mother's cohabitation experience and her premarital pregnancy history. Cohabitation experience measures whether during the daughter's lifetime the mother has ever lived with a man to whom she was not legally married (COHAB). Premarital pregnancy history is a measure of whether the mother had never been married at the birth of her first child (PREPREG).

The criterion variable, the daughter's sexual behavior, is measured by whether she has ever had sexual intercourse (1 = never, 2 = ever).

## RESULTS

Correlations among select background variables and between the background variables and the measures of the mother's direct and indirect sources of influence are shown in Table 1. Race is related to measures of early mother-daughter sexual communication, so that black mothers and daughters were less likely than white mothers and daughters to have discussed any of the sex-related topics (except sexual morality) prior to the girl's thirteenth birthday. The younger daugh-

**TABLE 1**  
**Zero-Order Correlations Among Background Variables**  
**and Sources of Mother's Influence**  
**(N = 449)\***

<u>Background</u>	<u>Race</u>	<u>Head</u>	<u>Relative Income</u>	<u>Family Religiosity</u>	<u>Daughter's Age</u>
Race <sup>a</sup>					
Head <sup>b</sup>	.12				
Relative Income	.05	.24*			
Family Religiosity	-.24	-.01	-.04		
Daughter's Age	-.02	.03	-.08	.01	
<u>Sources of Mother's Influence</u>					
<u>Early Sexual Communication</u>					
Birth Control <sup>c</sup>	.11	.04	.05	.09	-.13
Sexual Morality	.02	-.00	.00	.09	-.12
Dating and Boyfriends	.17	-.00	-.03	.00	-.17
Sexual Intercourse	.16	-.09	.12	.09	-.14
Menstruation	.10	.08	.07	.03	-.15
Conception	.18	.08	.12	.03	-.10
<u>Recent Sexual Communication</u>					
Birth Control <sup>d</sup>	.01	-.09	-.04	-.02	.04
Sexual Morality	.02	-.04	-.02	-.01	.05
Dating and Boyfriends	.19	.01	.04	-.07	.10
Sexual Intercourse	.02	-.03	-.05	-.01	.04
<u>Social Supervision</u>					
Wakes up at night <sup>e</sup>	.05	.14	.03	-.06	.03
Permission to go out	.11	.04	.03	.00	.07
Dating questions	.16	.05	.03	-.01	.09
Curfew rules	.09	-.01	-.01	.06	.10
Clothing rules	-.21	.02	.05	.10	-.03
<u>Quality of Mother-Daughter Relationship</u>					
MDREL	.11	.12	.14	.05	-.07
<u>Nonmarital Sexual History</u>					
Cohabitation <sup>f</sup>	.12	.19	.02	.01	-.00
Premarital Pregnancy <sup>g</sup>	.34	.11	.08	-.10	-.02

\*Correlations  $> .08$  are significant at the .05 level.

a. 1 = black, 2 = white.

b. 1 = female, 2 = other.

c. 1 = Never talked prior to age thirteen, 2 = Talked prior to age thirteen.

d. 1 = Talked less than ten times in last six months, 2 = Talked more than ten times in last six months.

e. 1 = Seldom or never, 2 = Often.

f. 1 = Cohabited in daughter's life, 2 = Never cohabited in daughter's life.

g. 1 = Never married, 2 = Ever married.

ters in our sample (that is, the fourteen-year-olds) are more likely to report having talked with their mothers than the older daughters (that is, the fifteen- and sixteen-year-olds). This latter finding may merely reflect reporting error; i.e., as

girls get older, they are more likely to have forgotten when these events occurred and so they give more recent estimates of the age at which they first discussed these topics with their mothers. Or it may indicate the beginning of a trend toward earlier sex socialization within the home, which would show up among the younger but not among the older girls in our study.<sup>2</sup> Female headship, relative family income, and family religiosity are related to several of the early communication items, so that mothers who did not head their households, mothers with higher relative incomes, and mothers in religious households are more likely to have discussed several sex-related topics prior to the daughter's thirteenth birthday.

None of the items in the second set of measures of frequency of recent mother-daughter sexual communication was consistently related to the background variables, although several of the relationships attain significance. Apparently, ongoing sexual discussions between mother and daughter are not strongly related either to family background characteristics or to daughter's age.

The only background variable related consistently to measures of mother's supervisory activities is race. Compared to black mothers, white mothers are more likely to require that the daughter ask for final permission to go out, are more likely to ask about the daughter's date, and are more likely to set curfew rules, but are less likely to set clothing rules.

The three measures of indirect maternal socialization influences, MDREL, COHAB, and PREPREG, are strongly related to race as well as to head of household. Black mothers and mothers heading their households tend to have daughters who report less open mother-daughter relationships. Furthermore, mothers with these characteristics are more likely to have cohabited in their daughter's lifetime and to have never been married at the time of the first birth. Relative family income is positively related to MDREL and to PREPREG, but it is not related to mother's cohabitation experience. The negative relationship observed between family religiosity and PREPREG, so that higher family religiosity is related



to greater likelihood of a premarital pregnancy by the mother, can be partially explained by their mutual relationship with race.

In order to examine the interrelationships among the direct and indirect maternal influences, the intercorrelations within and between items describing each maternal function are shown in Table 2. Two sets of communication items, early talking and current talking, are positively but not strongly related. There appears to be some continuity between early and current communication on specific topics, although discussions from one topic to another are less likely to be generalized from one time period to the next. The relationships between either early or current talking and supervision are predominantly positive though weak. Mothers who discuss sex-related subjects with their preteenage and teenage daughters tend also to assume responsibility for monitoring their social and dating activities. Furthermore, early and current talking about sex are related positively to MDREL. These latter significant correlations suggest that mother-daughter relationships characterized by open communication (MDREL) tend to carry over into the domain of sexual discussions. MDREL, however, is not systematically related to mother's supervisory function, aside from the findings that girls who report positive mother-daughter relationships are less likely to have curfew and clothing rules than girls who report negative mother-daughter relationships.

The relationships between mother's nonmarital sexual experiences and other aspects of her maternal involvement are also shown in Table 2. In general, neither early nor recent sexual communication is strongly related to the mother's nonmarital sexual experiences. In terms of supervisory activities, mothers who have cohabited in their daughters' lifetimes are less likely to wait up for their daughters than mothers who have not, and mothers who were never married at the birth of their first child are more likely to establish clothing rules for their daughters. Finally, the data show a significant positive relationship ( $r = .22$ ) between cohabitation experience

**TABLE 2**  
**Zero-Order Correlations Among Sources**  
**of Mother's Influence**  
**(N = 449)\***

	BC12	MOR12	DAT12	SEX12	MEN12	CON12	BCNOW	MORNOW	DATNOW	SEXNOW	Walks up	Permission	Dating Questions	Curfew Rules	Clothing Rules	MDREL	COHAB
<b>Early Sexual Communication</b>																	
B. Control:	BC12 <sup>c</sup>																
Morality:	MOR12	.42															
Dating:	DAT12	.25	.38														
Inter-	SEX12	.43	.17	.34													
course:																	
Menstrua-	MEN12	.23	.27	.27	.30												
tion:																	
Conception:	CON12	.26	.38	.39	.35	.34											
<b>Recent Sexual Communication</b>																	
B. Control:	BCNOW <sup>d</sup>	.16	.12	.12	.09	.07	.06										
Morality:	NORNOW	.09	.16	.12	.10	.04	.11	.06									
Dating:	DATNOW	.06	.01	.11	.06	-.00	.04	.48	.17								
Intercourse:	SEXNOW	.06	.16	.08	.13	.08	.09	.68	.67	.46							
<b>Social Supervision</b>																	
Walks up <sup>e</sup>		-.02	.01	.05	.06	.03	.07	.00	.05	.08	.07						
Permission		-.04	.04	.10	.11	.07	.13	.02	.04	.11	.02	.30					
Dating questions		.12	.06	.15	.08	.13	.11	.03	.01	.04	.07	.11	.21				
Curfew rules		.02	.04	.06	.07	-.02	.12	.02	-.03	.11	.07	.15	.39	.30			
Clothing rules		.11	.04	-.01	.01	-.02	-.01	.02	.05	.01	.10	.21	.11	.15	.20		
<b>Quality of Mother-Daughter Relationship</b>																	
MDREL		.08	.04	.17	.16	.13	.19	.10	.12	.05	.11	-.02	.06	.02	.11	-.13	
<b>Nonmarital Sexual History</b>																	
COHAB <sup>f</sup>		-.04	-.06	-.03	.02	.02	.04	-.06	-.02	.00	-.04	.11	.04	-.06	.07	.05	.06
PREPREG <sup>g</sup>		.03	-.07	-.00	.03	.07	.15	-.02	-.03	.01	-.00	-.08	.05	-.02	.03	-.13	.08

\*Correlations  $> .08$  are significant at the .05 level.

See c, d, e, f, g in Table 1.

and marital status at first birth. Mothers who have cohabited in their daughters' lifetimes are also more likely to have been never married at the time of their first birth.

Table 3 presents the results of bivariate analysis of background variables and mother's socialization functions with daughter's sexual status. The association between select demographic variables and whether the daughter has ever had sexual intercourse is shown in the first part of the table.

(text continued on p. 93)

**TABLE 3**  
**Percentage of Daughters Sexually Experienced by Select Background Variables**  
**and Sources of Mother's Influence**

	Percent Sexually Experienced	N		Percent Sexually Experienced	N
<b>TOTAL SAMPLE</b>					
<b>BACKGROUND VARIABLES</b>					
<u>Race</u>					
Black	40	(253)		43	(82)
White	22	(150)		30	(386)
	(X <sup>2</sup> =14.01, 1 d.f., p < .001)				
<u>Head of Household</u>					
Mother	40	(203)		45	(89)
Father or other	25	(244)		29	(359)
	(X <sup>2</sup> =10.23, 1 d.f., p < .001)				
<u>Relative Income</u>					
Low (0-2999)	40	(155)		37	(177)
Med (3000-4999)	29	(184)		29	(269)
High (5000-)	24	(146)			
	(X <sup>2</sup> =3.61, 2 d.f., n.s.)				
<u>Family Religiosity</u>					
Low (4-5)	32	(141)		47	(64)
Med (6-7)	37	(137)		29	(384)
High (8-16)	24	(171)			
	(X <sup>2</sup> =2.92, 2 d.f., n.s.)				
<u>Daughter's Age</u>					
14	32	(153)		34	(258)
15	36	(262)			
16	30	(34)		30	(178)
	(X <sup>2</sup> =13.24, 2 d.f., p < .001)				
<b>SOURCES OF MOTHER'S INFLUENCE</b>					
<u>A. Sexual Communication (cont'd)</u>					
42. Is topic discussed frequently now?					
<u>Birth control</u>					
Yes					
No					
	(X <sup>2</sup> =3.12, 1 d.f., p < .05)				
<u>Sexual morality</u>					
Yes					
No					
	(X <sup>2</sup> =7.94, 1 d.f., p < .01)				
<u>Dating and best friends</u>					
Yes					
No					
	(X <sup>2</sup> =2.53, 1 d.f., n.s.)				
<u>Sexual intercourse</u>					
Yes					
No					
	(X <sup>2</sup> =6.90, 1 d.f., p < .01)				
<u>B. Social Supervision</u>					
Write up for daughter					
Often					
Seldom or never					
	(X <sup>2</sup> =.46, 1 d.f., n.s.)				

Table 3 (Continued)

A. <u>Sexual Communication</u>		R. <u>Social Supervision (cont'd)</u>	
A.1 Was topic discussed before age 13?		Requires daughter to ask for permission	
Birth control		Often	32 (327)
Yes	26 (72)	Seldom or never	35 (109)
No	33 (377)	( $\chi^2=28, 1 \text{ d.f., n.s.}$ )	
Sexual morality		Often	32 (308)
Yes	33 (148)	Seldom or never	34 (129)
No	32 (300)	( $\chi^2=18, 1 \text{ d.f., n.s.}$ )	
Dating and boyfriends		Sets curfew for daughter	
Yes	29 (175)	Often	34 (298)
No	34 (274)	Seldom or never	30 (138)
( $\chi^2=.92, 1 \text{ d.f., n.s.}$ )		( $\chi^2=.47, 1 \text{ d.f., n.s.}$ )	
Sexual intercourse		Sets clothing rules	
Yes	28 (119)	Often	35 (76)
No	34 (330)	Seldom or never	31 (362)
( $\chi^2=1.14, 1 \text{ d.f., n.s.}$ )		( $\chi^2=.07, 1 \text{ d.f., n.s.}$ )	
Menstruation		C. <u>Quality of mother-daughter relationship</u>	
Yes	31 (309)	MDRFL	
No	34 (140)	Low	48 (143)
( $\chi^2=.32, 1 \text{ d.f., n.s.}$ )		Medium	30 (151)
Conception		High	20 (155)
Yes	31 (248)	( $\chi^2=26.46, 2 \text{ d.f., p}<.001$ )	
No	34 (201)	D. <u>Nonmarital sexual history</u>	
( $\chi^2=.38, 1 \text{ d.f., n.s.}$ )		Mother's cohabitation in daughter's lifetime	
		Never	30 (386)
		Ever	46 (63)
		( $\chi^2=5.83, 1 \text{ d.f., p}<.01$ )	
		Mother's marital status at birth of first child	
		Never married	46 (76)
		Ever married	30 (373)
		( $\chi^2=7.45, 1 \text{ d.f., p}<.01$ )	

All of the background variables except family religiosity are significantly related to the girl's sexual status. A larger percentage of the black girls (40%) than white girls (22%) have had at least one sexual experience. Furthermore, girls from households headed by their mothers and girls in relatively low-income households (adjusted for number of occupants) are more likely to be sexually experienced. Age of the daughter is also strongly related to her sexual status; the older the daughter, the greater the likelihood that she has had sex at least once in her life.

The association between each of the mother's roles and whether the daughter has ever had sexual intercourse is also shown in Table 3. It appears that the extent of mother-daughter communication on six sex topics prior to age thirteen is not related significantly to the daughter's subsequent sexual activity. It is worth noting, however, that on all of the topics but one (sexual morality), the percentage of daughters who are nonvirgins is slightly greater among daughters who had not discussed sex-related topics with their mothers prior to age thirteen. Although the differences are small, the fact that they are in the expected direction on five of the six topics suggests that mothers who are involved in early sexual socialization of daughters may have an impact on their daughters' subsequent sexual behavior.

Another picture of the mother's role as provider of information is captured by four measures of frequency of recent sexual communication. Table 3 shows that daughters who have discussed birth control, sexual morality, and sexual intercourse with their mothers ten or more times in the six months preceding the interview are more likely to have had a sexual experience than daughters who have not discussed these topics frequently. The differences are in the same direction but do not reach significance on the remaining topic of dating and boyfriends. Although mother-daughter sexual communication was expected to have a positive influence on the daughter's sexual behavior rather than the negative influence found here, it seems unlikely that discussions with the mother pre-

cipitated the daughter's sexual behavior. Indeed, most of the nonvirgins had initiated their sexual activity at least six months before the time of the interview, which is prior to the referent time-period for these measures of sexual communication. What is more likely is that mothers are responding to the sexual activity of their daughters with increased frequency of communication about important sex-related topics. There is no evidence, in this study at least, that mothers of nonvirgins are uninvolved in attempts to discuss sexual behavior with their daughters.<sup>3</sup>

The relationship between the mother's supervision of her daughter's social activities and the daughter's sexual status is shown next in the table. The mother's supervisory activities are not related to the daughter's sexual behavior; the differences are slight and inconsistent, and none of the relationships reach statistical significance. These findings indicate that parents who supervise their daughters' social activities are no more effective in influencing the sexual behavior of their daughters than parents who do not monitor these aspects of their teenage daughters' lives.

The remainder of Table 3 shows the relationship between the mother's indirect influences and the daughter's sexual status. The association between the mother's function as a source of socioemotional support (MDREL) and the daughter's sexual experience is significant at the .001 level. Daughters who report difficulties in their relationships with their mothers are more likely to have had sexual intercourse at the time of the interview than daughters who report more positive relationships. The quality of the relationship between mother and daughter is very strongly associated with a postponement of sexual intercourse among teenage girls.

Exposure of the daughter to a parental role model with a history of nonmarital sexual behavior is the final indirect maternal impact examined in this article. As expected, teenage girls whose mothers have cohabited in the daughters' lifetimes are significantly more likely to have engaged in nonmarital sexual intercourse themselves, and girls whose

mothers had never been married at the birth of their first child are more likely to have experienced a sexual episode. Both of these relationships are significant at the .01 level, suggesting that the example mothers set through their own involvement with men plays an important role early in their daughters' sexual careers.

It is clear from the discussion of Table 1 that some of the background variables are related to several aspects of maternal involvement. Since these background variables are also related to the girl's sexual behavior (Table 3), the mother's influence on teenage sexual behavior was examined with controls on these background variables. Six separate multiple regression analyses, regressing daughter's sexual status on the entire set of background variables, and on the five sets of maternal influences variables separately, were conducted. The regressions were conducted stepwise within sets, allowing for comparison of relative effects within variable sets. The results of the six separate regressions are shown on the left-hand side of Table 4. In the first regression on the background items comprising Set I, all of the variables except relative income were significantly related to daughter's sexual status. Race was the strongest predictor (standardized beta =  $-.17$ ), followed by daughter's age (standardized beta =  $.15$ ), head of household (  $-.12$ ), and family religiosity (  $-.11$ ). Overall, the entire set of background variables is significantly related to daughter's sexual status and accounts for 9.6% of the variance. The separate regression of the items in Set II, early mother-daughter sexual communication, yielded no significant results. However, frequency of recent sexual communication as a set is significantly related to daughter's sexual status at the .05 level. Mother's supervisory activities are not predictive of daughter's sexual behavior. The regressions of daughter's sexual status on two of the three indirect socialization measures, MDREL and COHAB, were significant. Indeed, MDREL accounts for almost as much variance by itself as the entire set of background variables (7.3%).

**TABLE 4**  
**Separate and Simultaneous Multiple Regressions**  
**of Daughter's Sexual Status on Background Variables**  
**and Sources of Mother's Influence**  
**(N = 449)**

A. Separate Multiple Regressions (stepwise solution)				B. Simultaneous Multiple Regressions (background variables entered first)	
	r	B	Stan- dard- ized Beta	R <sup>2</sup> Change	Stan- dard- ized Beta
<b>Set I. Background Variables</b>					
Race	-.19	.19	-.17**	.035	-.17***
Daughter's age	-.16	.24	-.15**	.025	-.15**
Head of household	-.17	.29	-.12*	.022	-.12*
Family religiosity	-.07	.11	-.11*	.014	-.11*
Relative income	-.07	.31***	.01	.000	.01
<b>Sources of Maternal Influence</b>					
<b>Set II. Early sexual communication</b>					
Birth Control	-.05	.05	-.06	.000	-.02
Sexual Morality	.03	.08	.10	.001	.02
Dating and Boyfriends	-.05	.09	-.05	.000	-.00
Sexual Intercourse	-.05	.10	-.05	.000	.01
Menstruation	-.03	.10	-.01	.000	.03
Conception	-.01	.10	-.00	.008	.06
<b>Set III. Recent sexual communication</b>					
Sexual Morality	.14	.14	.08	.002	.06
Sexual Intercourse	.13	.16	.07	.005	.06
Birth Control	.11	.16	.01	.002	-.08
Dating and Boyfriends	.08	.16*	.01	.001	.05
<b>Set IV. Social supervision</b>					
Clothing rules	.05	.05	.04	.000	.01
Permission to go out	-.03	.06	-.05	.001	-.04
Waits up at night	.03	.08	.04	.003	.05
Dating questions	-.01	.08	-.05	.000	.00
Curfew rules	.03	.09	.01	.000	.02
<b>Set V. Quality of Mother-Daughter Relationship</b>					
MDREL	-.27	.27***	-.27***	.045	-.23***
<b>Set VI. Nonmarital sexual history</b>					
Cohabitation	-.14	.14	-.12*	.008	-.09*
Premarital Pregnancy	-.12	.17**	-.09	.001	-.02

\*p < .05; \*\*p < .01; \*\*\*p < .001; R = .42\*\*\*, Adjusted R<sub>max</sub> = .72

The right-hand side of Table 4 shows the results of a single multiple regression, which controls on the background variables and examines the maternal influence variables simultaneously. The five background variables were forced to account for as much of the variance as possible, before the



maternal influence variables were entered into the equation stepwise. Since early sexual communication and supervision were not significant predictors by themselves, they were not expected to be significant in the simultaneous regression equation. The impact of recent sexual communication on the teenage daughter's sexual behavior was significant in the separate multiple regression analysis, but loses significance when other predictor and control variables are taken into account. Only two predictor variables emerge as significant. MDREL and COHAB, two measures of indirect socialization, continue to be significant once the effects of background variables have been partialled out. The reduction in the standardized beta for MDREL is minimal (from  $-.27$  to  $-.23$ ) and clearly attests to the importance of the mother-daughter relationship in teenage sexuality. The impact of COHAB is reduced from  $-.12$  to  $-.09$ , but the beta is still significant.

The overall goodness of fit for the entire set of predictor variables can be assessed by the multiple correlation coefficient  $R = .42$  ( $p < .001$ ). For descriptive purposes, the  $R$  coefficient can be evaluated against an adjusted  $R_{max}$  of  $.72$ , which takes into account the disparity between predicted and actual distributions on the criterion variable (see Carroll, 1961).

## DISCUSSION

In comparing the impact of direct and indirect aspects of maternal influence on teenage sexual behavior, these findings strongly suggest that indirect influences are more powerful than direct influences.

Direct sources of influence do not seem to make a difference. The three aspects of direct influence investigated in this article, early sexual communication, recent sexual communication, and supervision of social activities were not significantly related to daughter's sexual status when background variables are controlled. Apparently, the mother's impact on her daughter's sexual behavior is much more subtle and

unspoken. The mother's presence as a role model for her daughter, both in terms of her salience as a significant other in her daughter's life and in terms of her own nonmarital sexual experiences, was significantly related to daughter's sexual status, even after controlling for relevant background variables. By far the strongest predictor of sexual experience was the daughter's report of her relationship with her mother; the more favorable the relationship, the less likely was she to have had sex.

Several of the nonsignificant relationships found herein are worthy of some comment. The finding that early sexual discussions are not associated with sexual experience by age 14 to 16 suggests that parents need not fear they are encouraging sexual experimentation if they attempt to discuss sex-related topics with their children during their preteenage years. Indeed, the data presented here, though not significant, tend to support the view that early mother-daughter communication on these topics is more likely to be associated with a postponement of the daughter's sexual activity. Furthermore, the finding that nonvirgins are no less likely to be found in families in which mothers monitor closely the social behavior of their daughters than they are to be found in families in which the mother's supervision is comparatively lax is also important. Since the presumption is common that sexually active teenagers have parents who are less concerned, who are less involved, and who exercise less supervision on their children than parents of sexually inexperienced teens, it is important to emphasize the nonsignificant relationships between early sexual communication and supervision of the daughter's social activities and the daughter's sexual behavior. While it can certainly be argued that mothers of nonvirgins may provide information and exercise supervisory control ineffectively, it cannot be argued that they attempt to do so less frequently than mothers of virgins.

By way of conclusion, let us suggest briefly what the data presented here would imply for policy initiatives relative to causes of early adolescent childbearing. Given the importance

of the quality of the mother-daughter relationship in teenage sexual behavior, this study would suggest that policies which are directed at strengthening family functioning through undergirding adult family members in their roles as parents are as likely to be fruitful as policies targeted directly at teenagers. Thus, this study, like a growing body of similar studies, underlines the ultimate importance of the whole family unit as the larger social context within which individual behavior is displayed.

**Appendix: Items in MDREL Factor, with Factor Loadings  
After Varimax Rotation**

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<u>Factor Loading</u>	<u>Item Description</u>
.49	My mother doesn't seem to trust me.
.45	I tell my mother only those things I think she can handle without getting upset.
.43	I never know whether my mother really loves me or not.
.51	Often my mother doesn't really know how to talk to me.
.47	Most of the time I never know just what the rules are around here.
.48	In general, I feel awkward talking to my mother about sex and men-women things.
.56	My mother often complains about what I do.
.58	Often I don't really know how to talk to my mother.
.55	My mother wants to control whatever I do.

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## NOTES

1. Two other dimensions of the mother-daughter relationship indicated in the factor analysis measured the degree of positive affect and the degree of symmetry in the relationship. Each dimension was related to the daughter's sexual behavior in the same way as MDREL, although less strongly, and for ease of presentation, these data have not been included in the analysis here.

2. Further analyses indicate that the relationship between the daughter's age and whether she is the oldest daughter does not account for the finding that younger daughters reported earlier sex-related communication than older daughters. There is no relationship between age and birth order among daughters nor between birth order and early sexual communication.

3. In analyses not included here, the time order between frequency of sexual communication within the past six months and the daughter's sexual status was specified by excluding girls who experienced their first coital episode within the six-month period. On each of the four topics, girls with sexual experience were somewhat but not significantly more likely to have discussed these topics frequently with their mothers than sexually inexperienced girls. The differences are greatest on the topics of birth control and sexual intercourse, which further suggests that a major portion of current sexual communication occurs in response to the girl's sexual activity, and may be precipitated by it.

## REFERENCES

- Barglow, P., M. Bornstein, D. B. Exum, M. K. Wright, and H. M. Visotsky  
1968 "Some psychiatric aspects of illegitimate pregnancy in early adolescence."  
*Amer. J. of Orthopsychiatry* 38 (July): 672-687.
- Card, Josefina J.  
1978 "Long-term consequence for children born to adolescent parents." *American Institute for Research in the Behavioral Sciences (AIR)*. Palo Alto, CA.
- Carroll, John B.  
1961 "The nature of the data or how to choose a correlation coefficient." *Psychometrica* 26: 347-372.
- Chilman, Catherine  
1978 *Adolescent Sexuality in a Changing American Society*. Washington, DC: U.S. Government Printing Office.  
1974 "Some psychosocial aspects of female sexuality." *Family Coordinator* 23 2 (April): 123-131.
- Cvetkovich, George and Barbara Grote  
1976 "Psychological factors associated with adolescent premarital coitus." Presented at the National Institute of Child Health and Human Development, Bethesda MD.
- Elias, James E.  
1978 "Adolescents and sex." *Humanist* (March/April): 29-31.

**Fox, G. L. and J. K. Inazu**

- 1979 "The effect of mother-daughter communication on daughter's sexual and contraceptive knowledge and behavior." Presented at the annual meetings of the Population Association of America, Philadelphia, PA.
- 1978 "Talking about sex: patterns of mother-daughter communication." Presented at the annual meetings of the Michigan Sociological Association, Detroit, Michigan.

**Gebhard, Paul H.**

- 1977 "The acquisition of basic sex information." *J. of Sex Research* 13, 3(August): 148-169.

**Jessor, Shirley L. and Richard Jessor**

- 1975 "Transition from virginity to nonvirginity among youth: a social-psychological study over time." *Developmental Psychology* 11 4: 473-484.
- 1974 "Maternal ideology and adolescent problem behavior." *Developmental Psychology* 10, 2: 246-254.

**Kantner, John F. and Melvin Zelnik**

- 1973 "Contraception and pregnancy: experience of young unmarried women in the United States." *Family Planning Perspectives* 5, 1 (Winter): 11-25.
- 1972 "Sexual experience of young unmarried women in the United States." *Family Planning Perspectives* 4, 4 (October): 9-18.

**Ladner, Joyce A.**

- 1971 *Tomorrow's Tomorrow: The Black Women*. Garden City, NJ: Doubleday.

**Lewis, Robert A.**

- 1973 "Parents and peers: socialization agents in the coital behavior of young adults." *J. of Sex Research* 9, 2 (May): 156-170.

**Miller, Patricia and William Simon**

- 1974 "Adolescent sexual behavior: context and change." *Social Problems* 22, 1 (October): 58-76.

**Presser, Harriet**

- 1975 "Some consequences of adolescent pregnancies." Presented at the National Institute of Child Health and Human Development Conference, Bethesda, MD.

**Spanier, Graham B.**

- 1977 "Sources of sex information and premarital sexual behavior." *J. of Sex Research* 13, 2 (May): 73-88.
- 1976 "Formal and informal sex education as determinants of premarital sexual behavior." *Archives of Sexual Behavior* 5, 1: 39-67.

**Vener, Arthur and Cyrus Stewart**

- 1974 "Adolescent sexual behavior in middle America revisited: 1970-1973." *J. of Marriage and the Family* 36, 4 (November): 728-735.

**Warren, Carrie Lee and Richard St. Pierre**

- 1973 "Sources and accuracy of college students' sex knowledge." *J. of School Health* 43, 9 (November): 588-590.

**Wilson, Fiona**

- 1979 "Antecedents of adolescent pregnancy." (unpublished)

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