

# The Influence of Significant Others on Australian Teenagers' Decisions About Pregnancy Resolution

By Ann Evans

**Context:** Teenagers' decisions about how to resolve a pregnancy are made in the context of a society, a family and a relationship with a partner. Little is known about how such decisions are made, however, particularly in Australia.

**Methods:** The association between the influence—both direct and indirect—of significant others and adolescent women's decisions to terminate or continue a pregnancy is examined here using data from a case-control study on 1,324 pregnant teenagers in Australia. Bivariate analyses were used to explore the association between pregnancy resolution and direct or indirect influence toward abortion or birth. Multivariate logistic regression analyses were used to model the association between significant others' influence and teenagers' pregnancy resolution decisions while controlling for adolescent women's background characteristics.

**Results:** Teenagers who reported that their partner influenced them toward abortion had significantly increased odds of choosing abortion (10.4), and those whose partner influenced them toward motherhood had significantly reduced odds of choosing abortion (0.5). Direct influence from parents toward either abortion or motherhood was not significantly associated with teenagers' decisions. Mothers are an important source of indirect influence, however: Teenagers whose mother had become a mother as a teenager had reduced odds of choosing abortion (0.4), and those whose mother had ever had an abortion had increased odds of choosing abortion (2.1). Teenagers who had a sister who had ever had an abortion had significantly increased odds of choosing abortion (2.4).

**Conclusion:** While most young women report they were not directly influenced by a significant other in their decision to continue or terminate a pregnancy, pregnancy resolution decisions are affected by families and partners, often indirectly. These findings have important implications for the manner in which services are delivered to these young women.

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In Australia, there has been a distinct shift in how teenagers choose to resolve their pregnancies—from a dichotomy of marriage and motherhood or adoption to one of motherhood or abortion. From World War II to the 1960s, a speedy marriage, often arranged by parents, was a common option for resolving a teenager's pregnancy. If a marriage could not be organized, the young woman often was sent away to relatives, friends or a boarding house to deliver her child for adoption. Reports from women of this period suggest that the decision about how to resolve their pregnancy was almost entirely in their family's control.<sup>1</sup> Churches also played a role, running boarding houses and supporting families.<sup>2</sup>

From the mid-1960s, control over the decision began moving away from social institutions and toward more individual decision-making. Government financial support for single parents and easier ac-

cess to abortion meant that young pregnant women could more readily make their own decisions outside of the family structure.<sup>3</sup> In light of these changes, this article addresses whether significant others influence young women's decisions to continue or terminate a pregnancy, and if so, which significant others most strongly influence that decision.

Because of the difficulties of conducting research on teenagers' sexual behavior and pregnancy, the research literature on teenagers' pregnancy resolution decisions and what influences these decisions is sparse.<sup>4</sup> However, various studies provide insights into associations between the influences of significant others—boyfriends,\* parents, sisters and friends—and teenagers' decision-making about pregnancy. In one study, when faced with a hypothetical pregnancy, teenagers' choice of someone to consult for advice was different from the person they would choose if faced with other types of hypothetical decisions, such as those related to medical care, their career or their education.<sup>5</sup> Their partner was their first and

most frequently chosen consultant, followed by their mother.<sup>6</sup> In addition, sexually active young women who felt closer to their partner were more likely to consider birth in the event of pregnancy.<sup>7</sup>

Research also has found mothers to be the most important source of advice for pregnant teenagers.<sup>8</sup> A study in the United States of 432 pregnant teenagers younger than 18 and unmarried at conception found that young women were unlikely to consult parents when they first suspected they may be pregnant; boyfriends and female friends were more likely to be consulted at this early stage of pregnancy. This was true both of young women who chose to abort and those who chose to continue their pregnancy. However, in finalizing their decision, white and black adolescents who chose abortion and black adolescents who chose birth said their mother's influence was most important. White young women who chose birth rated their boyfriends as having the greatest influence on their decision.

The influence of significant others can either be direct (that which is expressed to the pregnant teenager through words or actions) or indirect, sometimes referred to as normative (that which is based on teenagers' observations of the behavior of those around them, such as mothers or sisters).<sup>9</sup> Direct influence has been found to be important in the decisions of both teenagers who aborted and those who continued pregnancies.<sup>10</sup> Those who continued pregnancies also reported being influenced by the pregnancy choices of friends and sisters. However, young women's decisions to have an abortion were not associated with the abortion decisions of others.<sup>11</sup>

The notion that young women whose mother had a pregnancy as a teenager are destined to become teenage mothers themselves has been challenged in an analysis of data on black teenagers in the United States from the National Longitudinal Survey of Youth.<sup>12</sup> While young

\*The term "partner" is used throughout this paper as synonymous with the terms "putative father" and "boyfriend," which are also used in the literature.

Ann Evans is a doctoral candidate in the Demography Program, Research School of Social Sciences, Australian National University, Canberra, Australia. The author acknowledges the assistance of colleagues in the Demography Program.

women whose mother gave birth as a teenager were more likely to be young mothers than were those whose mother did not give birth as a teenager; other factors, such as socioeconomic status and family disruption, were associated with an increased probability of these teenagers' becoming mothers. Similar results have been found in the United States for both blacks and whites.<sup>13</sup>

Thus, the literature indicates that both the source of influence and whether the influence is direct or indirect are associated with teenagers' pregnancy resolution decisions. Using data on Australian adolescent women, this article explores the direct and indirect influence of family members, partners and friends on young women's decisions to terminate or continue a pregnancy.

In addition, this article examines young women's living arrangement and area of residence, as these could be related to the source of the influence they may receive and whether they have access to abortion services. It is likely that young women who live with their family of origin would be more likely than those who live away from their family to receive influence from family members, whereas those who live with their partner would be more likely to experience influence from him. Area of residence is important to consider in this context because abortion clinics in New South Wales are concentrated around Sydney, with one clinic each in the regional centers of Newcastle, Tweed Heads in the north and Albury in the south. This makes accessing abortion services problematic for women who live in rural or remote areas of the state.

## Methodology

### Data

The data analyzed in this article are drawn from the Young Women's Pregnancy Survey (YWPS), which was conducted in 1998 in Australia. The YWPS is a case-control study based on a survey of 1,324 adolescent women living in New South Wales or the Australian Capital Territory—a small, landlocked territory within New South Wales—who either were younger than 20 years and seven months and had given birth in the year preceding the survey, or who had terminated a pregnancy at one of several abortion clinics in New South Wales prior to their 20th birthday.\*

New South Wales was chosen for the study because it is Australia's most populous state, with Sydney as the state capital. Most residents of the Australian Capital Territory live in the city of Canberra. Canber-

ra has one abortion clinic, which did not participate in the survey. There is no evidence to suggest that teenagers in the Australian Capital Territory are any different from others in New South Wales or that teenagers in New South Wales differ substantially from others in Australia.

For the purposes of this article, the two groups of adolescent women are referred to as the motherhood group and the abortion group, indicating the outcome of their pregnancies. The survey was a self-administered mail-in survey. A survey hotline was established for women to call if they required assistance with completing the survey or if they had questions about confidentiality and how the data would be used.

The survey was designed to examine various aspects of teenagers' decisions to terminate or continue their pregnancy—some of which extend beyond the scope of this article, including questions about initiation of sexual activity, sexual history and contraceptive use. The survey also asked about the control that the respondent felt she had over her decision. This question was followed by a series of questions about who influenced the decision. Because influence could be consistent with or contrary to a teenager's ultimate decision, the survey had separate questions to test for these events. To examine whether teenagers received indirect influence, the questionnaire asked about their mother's, sisters' and friends' experiences of abortion and pregnancy.

The motherhood group received the questionnaire from the Department of Social Security, and the abortion group received the questionnaire upon attending an abortion clinic. Abortion clinics distributed questionnaires for three months. The Department of Social Security mailed approximately 3,000 surveys to young

**Table 1. Percentage distribution of young women aged 20 and younger, by background characteristics, and percentage reporting various types and sources of influence, according to how pregnancy was resolved**

Characteristic/influence	Motherhood (N=1,122)	Abortion (N=202)
<b>% DISTRIBUTIONS</b>		
<b>Area of residence</b>		
Suburban	48.5	50.5
Rural and remote	48.1	31.2
Inner urban	3.4	18.3
<b>Living arrangement at time of conception</b>		
With family of origin	47.7	73.8
With partner and his family	42.2	15.3
Alone/with peers	10.2	10.9
<b>Religion</b>		
No religion	27.4	38.2
Catholic	25.3	24.1
Other Christian	44.4	35.7
Muslim/other non-Christian	3.0	2.0
<b>Origin</b>		
Australian/English-speaking	88.1	85.1
Non-English-speaking	4.9	13.9
Indigenous	7.0	1.0
<b>Age at conception (years)</b>		
≤17	26.0	31.7
18–20	74.0	68.3
<b>Marital status at conception</b>		
Not married	91.8	99.0
Married	8.2	1.0
Total	100.0	100.0
<b>INFLUENCES</b>		
<b>Type of influence</b>		
Direct, toward abortion	24.8	39.1
Direct, toward birth	19.3	21.3
Indirect, toward abortion	17.2	31.7
Indirect, toward birth	56.8	38.1
<b>Type and source of influence</b>		
Mother, indirect, toward birth	50.7	33.2
Sister, indirect, toward birth	16.7	9.9
Mother, indirect, toward abortion	10.5	21.3
Sister, indirect, toward abortion	7.9	11.4
Partner, direct, toward abortion	6.1	34.2
Parents, direct, toward abortion	10.7	14.4
Partner, direct, toward birth	15.3	5.9
Parents, direct, toward birth	6.0	5.9

mothers. Of these, 1,122 surveys (37%) were returned. During the three months of the clinic survey, 202 surveys were returned. However, it is not possible to calculate a response rate for the abortion group because only one clinic maintained a register of the number of surveys it distributed. At that clinic, 34% of the surveys were returned. Response rates of this magnitude were expected, given the survey collection methods and the ages of the young women.

\*Fourteen clinics in New South Wales were identified from the Yellow Pages telephone directory. Twelve clinics agreed to participate: eight in the Sydney area, and one each in Tweed Heads, Albury, Campbelltown and Newcastle. Of the two clinics that declined to participate, one rarely saw clients younger than 20, and the other could not manage the additional workload that survey administration would produce.

**Table 2. Percentage distribution of teenagers reporting direct influence from significant others that was contrary to their pregnancy resolution decision, by identity of significant other, according to living arrangement at time of conception**

Influence/identity	Total	Family of origin	Partner and his family	Alone/with peers
<b>Significant others who influenced young women in the abortion group toward motherhood</b>				
<b>group toward motherhood</b>				
No one	(N=202)	(N=149)	(N=31)	(N=22)
No one	79.9	83.6	61.3	81.8
Partner	5.9	3.4	22.6	0.0
Mother/father	4.0	2.0	9.7	9.1
Other family	1.0	1.3	0.0	0.0
Partner's family	2.0	1.3	6.5	0.0
Friends	6.9	8.1	0.0	9.1
Church/doctor/school/other	0.3	0.3	0.0	0.0
<b>Significant others who influenced young women in the motherhood group toward abortion</b>				
<b>group toward abortion</b>				
No one	(N=1,122)	(N=535)	(N=473)	(N=114)
No one	75.8	68.7	86.4	64.9
Partner	6.1	8.2	2.5	11.4
Mother/father	7.4	9.0	4.7	11.4
Other family	2.9	4.5	1.7	0.9
Partner's family	3.3	3.4	3.4	2.6
Friends	1.8	2.4	0.6	3.5
Church/doctor/school/other	2.7	3.8	0.7	5.3
<b>Significant others who influenced young women in the motherhood group toward adoption*</b>				
<b>group toward adoption*</b>				
No one	(N=1,122)	(N=535)	(N=473)	(N=114)
No one	94.9	92.5	98.3	92.1
Partner	0.6	1.1	0.2	0.0
Mother/father	2.4	3.7	0.4	4.4
Other family	0.9	1.3	0.6	0.0
Partner's family	0.6	1.1	0.0	0.9
Friends	0.4	0.0	0.4	2.6
Church/doctor/school/other	0.1	0.2	0.0	0.0
Total	100.0	100.0	100.0	100.0

\*Two women (1%) who chose abortion said they were influenced by their parents to choose adoption.

### Forms of Influence

Direct and indirect influence on a teenager's decision about how to resolve a pregnancy were considered as either influence toward birth or influence toward abortion. In the YWPS, data on direct influence were collected by separate questions, according to whether the influence was contrary to or consistent with a teen-

ager's eventual decision. Regarding influence contrary to their decision, teenagers were asked: "Did you feel pressure from others to have an abortion/a birth or have the baby adopted?" Regarding influence consistent with an eventual decision, teenagers were asked: "Was the decision to keep the baby/have an abortion entirely your own decision or did you feel pressure from others?" Following each question, respondents were asked to identify the source of the influence or pressure.

To measure indirect influence, the survey asked teenagers to indicate the age at which their mother first gave birth, and the ages at which their sisters (if any) first gave birth (if ever) and their friends first gave birth (if ever). Teenagers were classified as experiencing indirect influence toward birth if they indicated that their mother, sister or a friend

had become a mother as a teenager. Similarly, if respondents indicated that their mother, sister or friend had ever had an abortion, they were classified as experiencing indirect influence toward abortion.

### Bivariate Results

#### Demographic Characteristics

While similar proportions of teenagers in both groups lived in a suburban area, a larger proportion of teenagers in the motherhood group than in the abortion group lived in a rural area (48% vs. 31%), and a larger proportion of those in the abortion group lived in an inner urban area (18% vs. 3%) (Table 1, page 225). Almost three-quarters (74%) of the abortion group lived with their family at the time of conception, while slightly less than half (48%) of

the motherhood group did. Forty-two percent of teenagers who chose motherhood lived with their partner and his family, while only 15% of those who chose abortion did so. Approximately one-quarter of teenagers in both groups were Catholic, while 44% of those who chose motherhood and 36% of those who chose abortion said they were affiliated with another Christian religion. Twenty-seven percent of teenagers who chose motherhood and 38% of those who chose abortion reported no religious affiliation, and 3% and 2%, respectively, said they were Muslim or of another non-Christian faith. The vast majority in both groups were not married.

#### Type of Influence Reported

Young women's decisions about how to resolve a pregnancy differed depending on the type and direction of influence they reported. A larger proportion of teenagers who chose abortion reported direct influence toward abortion (39%) than those who chose motherhood (25%). However, similar proportions of teenagers in both groups reported direct influence toward birth (21% and 19%, respectively).

In the case of indirect influence, a larger proportion of teenagers in the abortion group reported indirect influence toward abortion than those in the motherhood group (32% vs. 17%). Furthermore, a larger proportion of teenagers in the motherhood group reported indirect influence toward birth than those in the abortion group (57% vs. 38%).

The proportions of teenagers in each group who reported influence from a specific significant other also varied. In the abortion group, 34% of young women said their partner influenced them toward abortion, while only 6% of those in the motherhood group said their partner influenced them toward abortion. Similarly, in the motherhood group, 15% of teenagers said their partner influenced them toward giving birth, while only 6% of those in the abortion group said their partner influenced them in that direction.

#### Influence Contrary to Decision

The majority of young women in both the motherhood group (76%) and the abortion group (80%) reported no direct influence toward the pregnancy resolution option that was contrary to their choice (Table 2).<sup>\*</sup> Among the abortion group, teenagers reported influence toward motherhood

\*Because of the small size of some of the subgroups in the sample, it was not possible to perform significance tests on these data or those presented in Table 3.

**Table 3. Percentage of teenagers reporting direct influence from significant others that was consistent with their pregnancy resolution decision, by identity of significant other, according to living arrangement at time of conception**

Identity	Total	Family of origin	Partner and his family	Alone/with peers
<b>Chose abortion</b>				
No one	(N=202)	(N=149)	(N=31)	(N=22)
No one	60.9	62.4	64.5	45.5
Partner	34.2	32.2	29.0	54.5
Mother	14.4	13.4	16.1	18.2
Father	5.9	3.4	16.1	9.1
<b>Chose motherhood</b>				
No one	(N=1,122)	(N=535)	(N=473)	(N=114)
No one	80.7	81.7	78.6	85.1
Partner	15.3	12.9	18.6	13.2
Mother	5.6	8.0	3.2	4.4
Father	2.1	3.0	1.3	1.8

Note: Percentages do not add to 100, as multiple responses were possible.

**Table 4. Percentage distribution of teenagers, by mother's, sister's and friend's ages at first birth, according to pregnancy resolution group**

Significant other and age	Abortion		Motherhood	
	N	%	N	%
<b>Mother's age at first birth (years)**</b>				
≤20	67	34.2	569	53.6
21–25	67	34.2	296	27.9
≥26	62	31.6	196	18.5
Total	196	100.0	1,061	100.0
<b>Sister's age at first birth*,†</b>				
No children	113	57.9	510	46.7
≤20 years	20	10.3	187	17.1
≥21 years	15	7.7	114	10.4
No sister	47	24.1	282	25.8
Total	195	100.0	1,093	100.0
<b>Friend's age at first birth**,‡</b>				
No children	76	37.6	174	16.2
≤20 years	106	52.5	566	52.7
≥21 years	20	9.9	333	31.0
Total	202	100.0	1,073	100.0

\*Difference between abortion and motherhood groups is statistically significant at  $p<.05$ . \*\*Difference between abortion and motherhood groups is statistically significant at  $p<.01$ . †Two teenagers in the abortion group and 13 in the motherhood group had sisters with children but did not provide their sister's age at first birth. ‡Forty-four teenagers had friends with children but did not provide their friend's age at first birth. Note: Young women's responses were statistically compared using  $\chi^2$  tests.

from friends (7%), their partner (6%), their parents (4%), their partner's family (2%) and other family members (1%).

Among the motherhood group, teenagers reported direct influence toward abortion from their parents (7%), their partner (6%), other family members (3%), their partner's family (3%), their doctor or someone affiliated with their church or school (3%), or their friends (2%). Only 5% of teenagers who chose motherhood and 1% of those who chose abortion reported experiencing influence toward giving up the child for adoption.

Among young women who chose abortion but were influenced by others to continue the pregnancy, a larger proportion of those living with their partner and his family reported such influence, compared with women in other living arrangements (40%, compared with 18% of those who lived alone or with peers and 16% of those who lived with their family of origin). Women in the abortion group who were residing with their family of origin reported experiencing the most influence from their friends to continue their pregnancy: Eight percent reported friends as a source of influence toward birth, compared with 8% who reported influence from all other sources of influence combined.

Among women who chose motherhood, a larger proportion of those living alone or with peers reported influence from others to have an abortion than those living with their family of origin or with

their partner and his family (35%, compared with 31% and 14%, respectively). In addition, a larger proportion of those living alone or with peers reported influence toward abortion from their partner than those living with their own family or with their partner and his family (11%, compared with 8% and 3%, respectively).

As noted above, few women reported influence toward adoption, but young women's parents were the most likely source of such influence. Of the 5% of young women who chose motherhood and reported such influence, 2% said their parents were the source of influence, while the remainder reported other significant others as sources of this influence. Larger proportions of women who chose motherhood and who were living with their family or alone or with peers reported influence toward adoption from parents than did those living with their partner and his family (4% each, compared with 0.4%, respectively).

### Influence Consistent with Decision

According to teenagers' reports of influence from significant others that was consistent with their pregnancy resolution decision, again, the majority of teenagers in both the abortion group (61%) and the motherhood group (81%) said they came to their decision entirely on their own, without influence from anyone (Table 3). Among those who chose abortion, 34% said their partner influenced their decision, 14% said their mother did and 6% said their father did.

Among those who chose motherhood, 15% said they received direct influence from their partner, 6% said there was influence from their mother and 2% said there was influence from their father. Thus, smaller proportions of young women who chose motherhood than of those who chose abortion reported receiving direct influence consistent with their eventual decision.

Among the abortion

group, young women's partners were more likely to be a source of influence consistent with their decision if women were living alone or with peers (55%) than if they were living with their own family or their partner and his family (32% and 29%, respectively). Women who lived apart from their family of origin at the time of the pregnancy, either with the putative father or alone or with peers, were more likely to report mothers as the source of direct influence to terminate their pregnancy than those who were living with their own family (16% and 18%, respectively, compared with 13%).

Somewhat larger proportions of young women who chose motherhood and were living with their family of origin than those in other living arrangements reported experiencing direct influence consistent with their eventual decision. Women in the motherhood group who were living alone or with peers at the time of pregnancy were least likely to report receiving such influence.

Overall, the partner and the young woman's mother were the main sources of direct influence in favor of motherhood

**Table 5. Percentage distribution of teenagers, by reported abortion experiences of significant others and whether young women discussed these experiences with them, according to pregnancy resolution group**

Experience	Abortion		Motherhood	
	N	%	N	%
<b>Has your mother ever had an abortion?**</b>				
Yes	43	21.3	118	10.6
No	130	64.4	821	73.8
Don't know	29	14.4	174	15.6
Total	202	100.0	1,113	100.0
<b>Have you ever discussed her abortion experience?*,†</b>				
Yes	37	86.0	77	65.3
No	6	14.0	41	34.7
Total	43	100.0	118	100.0
<b>Has your sister ever had an abortion?‡</b>				
Yes	23	15.0	89	10.8
No	124	81.0	665	80.7
Don't know	6	3.9	70	8.5
Total	153	100.0	824	100.0
<b>Have you ever discussed her abortion experience?*,†</b>				
Yes	18	78.3	47	53.4
No	5	21.7	41	46.6
Total	23	100.0	88	100.0
<b>Has your friend ever had an abortion?</b>				
Yes	122	60.4	613	55.7
No	56	27.7	314	28.5
Don't know	24	11.9	174	15.8
Total	202	100.0	1,101	100.0
<b>Have you ever discussed her abortion experience?†</b>				
Yes	100	82.0	429	70.2
No	22	18.0	182	29.8
Total	122	100.0	611	100.0

\*Difference between abortion and motherhood groups is statistically significant at  $p<.05$ . \*\*Difference between abortion and motherhood groups is statistically significant at  $p<.01$ . †Only among those whose mother, sister or friend had an abortion. ‡Forty-nine young women in the abortion group and 298 in the motherhood group had no sister. Note: Young women's responses were statistically compared using  $\chi^2$  tests.

among women who chose to give birth (15% and 6%, respectively).

### Indirect Influence

- Teenage births among significant others.** Among young women in the motherhood group, 54% reported that their mother had had her first child when she was 20 or younger (Table 4, page 227). A significantly smaller proportion (34%) of young women in the abortion group said that their mother was 20 or younger when she had her first child.

Compared with adolescent women who chose abortion, a significantly larger proportion of those who chose motherhood said they had a sister who had had her first child when she was 20 years old or younger (10% vs. 17%). Fifty-three percent of teenagers in both the abortion group and the motherhood group reported having a friend who had given birth as a teenager.

The difference between the two groups in their reports of their mothers' and sisters' experiences suggests a strong indirect influence of family members on the outcome of a teenager's pregnancy. However, as the proportion of women in each group who had a friend who had had a teenage birth was the same, it appears that the experiences of friends do not necessarily influence teenagers' pregnancy resolution decisions.

- Abortions among significant others.** Significantly larger proportions of teenagers in the abortion group than in the motherhood group reported that their mother had had an abortion and that they had discussed their mother's abortion experience with her (Table 5, page 227). In addition, significantly larger proportions of young women in the abortion group than in the motherhood group whose sister had had an abortion said they had discussed their sister's abortion experience with her. However, there was no significant difference between resolution groups in the proportion of women who had a friend who had had an abortion.

The main difference between the indirect influence of significant others who have had an abortion and significant oth-

\*There are of course other characteristics not included here, including socioeconomic status, that could affect teenagers' decisions to terminate or continue a pregnancy. Socioeconomic status was excluded because of the difficulty of measuring it or identifying a proxy for it in this sample. Still other factors could affect teenagers' decisions leading to pregnancy, such as deciding to have sex or to use contraception. Sources: Evans A, Power and negotiation: young women's choices about sex and contraception, *Journal of Population Research*, 2000, 17(2):235-260; and Miller B and Moore K, 1990 (see reference 4).

**Table 6. Multivariate coefficients and odds ratios (and standard errors) from two logistic regression models of the effects of type of influence and background characteristics on teenagers' pregnancy resolution decision**

Type of influence and characteristics	Model I		Model II	
	Coefficient	Odds ratio	Coefficient	Odds ratio
<b>Type of influence</b>				
Direct, toward abortion	0.55	1.73** (0.16)	na	na
Direct, toward birth	0.04	1.04 (0.19)	na	na
Indirect, toward abortion	0.87	2.39** (0.18)	na	na
Indirect, toward birth	-0.81	0.45** (0.16)	na	na
<b>Area of residence</b>				
Suburban (ref)	na	na	0.00	1.00
Rural and remote	na	na	-0.99	0.37** (0.33)
Inner urban	na	na	1.44	4.23** (0.50)
<b>Religious affiliation</b>				
No affiliation (ref)	na	na	0.00	1.00
Catholic	na	na	-0.74	0.48** (0.24)
Other Christian	na	na	-0.57	0.20
Muslim/other non-Christian	na	na	-1.55	0.21* (0.67)
<b>Origin</b>				
Australian/English-speaking (ref)	na	na	0.00	1.00
Non-English-speaking	na	na	1.24	3.46** (0.32)
Indigenous	na	na	-1.73	0.18* (0.73)
<b>Age at conception</b>				
≤17 (ref)	na	na	0.00	1.00
18–20	na	na	-0.21	0.81 (0.19)
<b>Marital status at conception</b>				
Not married (ref)	na	na	0.00	1.00
Married	na	na	-2.11	0.12* (0.80)
<b>Interaction of area of residence and type of influence</b>				
Suburban				
Direct, toward abortion	na	na	0.43	1.54 (0.25)
Direct, toward birth	na	na	0.21	1.24 (0.31)
Indirect, toward abortion	na	na	1.58	4.83** (0.27)
Indirect, toward birth	na	na	-1.83	0.16** (0.29)
Rural and remote				
Direct, toward abortion	na	na	1.17	3.21** (0.29)
Direct, toward birth	na	na	-0.28	0.76 (0.35)
Indirect, toward abortion	na	na	0.36	1.44 (0.34)
Indirect, toward birth	na	na	0.22	1.25 (0.29)
Inner urban				
Direct, toward abortion	na	na	-1.38	0.25 (0.77)
Direct, toward birth	na	na	2.62	13.8* (1.11)
Indirect, toward abortion	na	na	-2.15	0.12** (0.72)
Indirect influence toward birth	na	na	1.87	6.51* (0.69)
Constant	-1.72	0.13	-1.02	0.26
-2 Log likelihood (df)	1070.182	(4)	876.748	(21)
Cox & Snell pseudo R <sup>2</sup>	0.05		0.17	
No. of cases	1,324		1,310	

\*p<.05. \*\* p<.01. Notes: ref=reference group. Dependent variable coded as 1=abortion and 0=motherhood.

ers who became a mother as a teenager is that a friend or family member's abortion may not necessarily be known or discussed openly. Furthermore, it is likely that discussions of the experience of abortion have more of an impact on the resolution decision than simply knowledge of the decision. However, it is not possible to know from these data whether the discussions were negative or positive in nature. For example, discussions about negative consequences or regret could lead a teenager to choose motherhood rather than abortion. On the other hand, hearing about the positive experiences of others, such as the simplicity of the abortion procedure and the sense of relief felt by many

women, could lead a teenager to choose abortion.

### Multivariate Analyses

#### Influence and Decisions

To explore the association between the different types and sources of influence and teenagers' decision about pregnancy resolution, multivariate logistic regression analyses were conducted. Several demographic characteristics of teenagers at the time of conception—age, marital status, ethnicity, religious affiliation and area of residence (urban, inner urban or rural)—were included to control for other factors that could influence teenagers' pregnancy resolution decisions.\*

The first multivariate logistic regression analysis was performed using two models: Model I includes only the influence variables and Model II controls for demographic characteristics (Table 6). Because influence and young women's pregnancy resolution decisions could be modified by women's proximity and access to abortion services, interactions between the types of influence and women's area of residence were tested.

The results of Model I indicate an association between influence and pregnancy resolution in the direction in which it would be expected: Young women who reported either direct or indirect influence toward abortion had increased odds of choosing abortion (odds ratios, 1.7 and 2.4, respectively). Furthermore, young women who reported indirect influence toward motherhood had decreased odds of choosing abortion (0.5).

Many background characteristics are significantly related to teenagers' decisions about pregnancy resolution. Teenagers who reported a religious affiliation were significantly less likely to choose abortion than those who reported no affiliation (odds ratios, 0.2–0.5). In addition, teenagers from another country that is non-English-speaking were more likely to choose abortion (odds ratio, 3.5) than those whose country of origin is Australia or another country where English is the official language (excluding Aboriginal or Torres Strait Islander teenagers), while indigenous teenagers were less likely to choose abortion (odds ratio, 0.2). Teenagers who were married prior to becoming pregnant had significantly reduced odds of choosing abortion (0.1) compared with those who were not married.

Because of their potential interaction with area of residence, the four types of influence are examined separately here for each area of residence. In suburban areas, direct influence was not significantly associated with teenagers' pregnancy resolution decisions, but there was a significant association between indirect influence toward both abortion and motherhood. Indirect influence toward abortion was associated with an increase in the odds of choosing abortion (4.8), and indirect influence toward motherhood was associated with reduced odds of choosing abortion (0.2).

In rural or remote areas, teenagers who reported direct influence toward abortion had significantly increased odds of choosing abortion (3.2).<sup>\*</sup> Thus, the influence of significant others is associated with teenagers' pregnancy resolution decisions, but

**Table 7. Multivariate coefficients and odds ratios (and standard errors) from two logistic regression models of the effects of source and type of influence and background characteristics on teenagers' pregnancy resolution decision**

Source/type of influence and characteristics	Model I		Model II	
	Coefficient	Odds ratio	Coefficient	Odds ratio
<b>Source and type of influence</b>				
Mother, indirect, toward birth	-0.84	0.43** (0.18)	na	na
Sister, indirect, toward birth	-0.40	0.67 (0.27)	-0.26	0.77 (0.30)
Mother, indirect, toward abortion	0.75	2.13** (0.22)	na	na
Sister, indirect, toward abortion	0.78	2.18** (0.27)	0.85	2.35** (0.31)
Partner, direct, toward abortion	2.12	8.31** (0.21)	2.34	10.40** (0.24)
Parents, direct, toward abortion	0.15	1.16 (0.25)	0.08	1.08 (0.27)
Partner, direct, toward birth	-0.75	0.47* (0.32)	-0.76	0.47* (0.38)
Parents, direct, toward birth	-0.37	0.69 (0.36)	-0.28	0.75 (0.41)
<b>Area of residence</b>				
Suburban (ref)	na	na	0.00	1.00
Rural and remote	na	na	-0.31	0.73 (0.26)
Inner urban	na	na	1.26	3.53** (0.42)
<b>Religious affiliation</b>				
No affiliation (ref)	na	na	0.00	1.00
Catholic	na	na	-0.65	0.52* (0.25)
Other Christian	na	na	-0.59	0.55* (0.22)
Muslim/other non-Christian	na	na	-1.16	0.31 (0.65)
<b>Origin</b>				
Australian/English-speaking (ref)	na	na	0.00	1.00
Non-English-speaking	na	na	1.14	3.14** (0.33)
Indigenous	na	na	-1.47	0.23 (0.74)
<b>Age at conception</b>				
≤17 (ref)	na	na	0.00	1.00
18–20	na	na	-0.44	0.64* (0.20)
<b>Marital status at conception</b>				
Not married (ref)	na	na	0.00	1.00
Married	na	na	-1.53	0.22* (0.74)
<b>Interaction of area of residence and source and type of influence</b>				
Suburban				
Mother, indirect, toward birth	na	na	-1.71	0.18** (0.31)
Mother indirect, toward abortion	na	na	1.76	5.84** (0.31)
Rural and remote				
Mother, indirect, toward birth	na	na	-0.32	0.73 (0.30)
Mother indirect, toward abortion	na	na	-0.39	0.68 (0.51)
Inner urban				
Mother, indirect, toward birth	na	na	1.35	3.84* (0.61)
Mother, indirect, toward abortion	na	na	-2.50	0.08** (0.85)
Constant	-1.784	0.128**	-1.167	0.254**
-2 Log likelihood (df)	968.125	(8)	809.002	(21)
Cox & Snell pseudo R <sup>2</sup>	0.12		0.21	
No. of cases	1,324		1,310	

\*p<.05. \*\*p<.01. Notes: ref=reference group. Dependent variable coded as 1=abortion and 0=motherhood.

the effects of this influence are modified by area of residence at the time of conception.

#### **The Effect of Influence Source**

To further explore the association between the influence of significant others and teenagers' pregnancy resolution decisions, we can examine teenagers' reported source of influence in a second multivariate analysis (Table 7). The variables in this analysis include direct influence from teenagers' parents or partners and indirect influence from mothers and sisters. Again, there are two models: Model I measures the association between influence and resolution decision, while Model II controls for demographic characteristics.

Direct influence from partners, either toward abortion or motherhood, was significantly associated with teenagers' pregnancy resolution decisions. Teenagers who reported that their partner influenced them toward abortion had significantly increased odds of choosing abortion (8.3), and those whose partner influenced them toward motherhood had significantly reduced odds of choosing abortion (0.5). By contrast, direct influence from parents toward either abortion or motherhood was

\*The results of this model for adolescent women living in inner urban areas are not presented either in Table 6 or in Table 7, as the number of teenagers in these areas who reported influence is too small to produce meaningful results.

not significantly associated with teenagers' decisions. However, mothers are an important source of indirect influence toward both birth and abortion. Teenagers whose mother had become a mother as a teenager had reduced odds of choosing abortion (0.4), and those whose mother had ever had an abortion had increased odds of choosing abortion (2.1). Sisters were a source of indirect influence toward abortion, but not toward birth. Teenagers whose sister had ever had an abortion had significantly increased odds of choosing abortion (2.2).

When controlled for the effects of background characteristics, the association with direct influence from partners was maintained. Young women who reported direct influence from partners toward abortion had significantly increased odds of choosing abortion (odds ratio, 10.4), and those who reported such influence toward motherhood had significantly reduced odds of choosing abortion (0.5). The association with indirect influence toward abortion from sisters also was maintained.

The model was tested for interactions between source of influence and area of residence. In this analysis, only indirect influence from a mother had a significant interaction with area of residence. Suburban young women who reported that their mother had become a mother as a teenager had significantly reduced odds of choosing abortion (odds ratio, 0.2), and those whose mother had had an abortion had significantly increased odds of having an abortion (5.8). However, these associations did not hold for teenagers who lived in rural or remote areas at the time of conception.

## Discussion

The majority of young women in both the motherhood group and the abortion group reported no direct influence toward the pregnancy resolution contrary to their choice, and reported that they arrived at their decision entirely on their own. Even so, pregnancy resolution decisions are occurring within the context of a family and a relationship with a partner.

For women in rural and remote areas, direct influence toward abortion was associated with increased odds of choosing abortion. Given the difficulties of access-

ing abortion services in rural and remote areas, it is likely that support and assistance to arrange an abortion accompanied this influence. Suburban teenagers' decisions were associated with indirect influence: They had increased odds of abortion if their mother or sister also had had an abortion. Similarly, suburban teenagers' reports of indirect influence toward birth were associated with reduced odds of abortion.

Young women's reports of direct influence from their partner were significantly associated with their decisions about how to resolve their pregnancy, while direct influence from parents was not. However, indirect influence from family members was significantly associated with teenagers' decisions. Choosing motherhood appears to be strongly related to the past pregnancy resolution decisions of other family members. Similarly, young women's awareness of the past abortions of their mother and sister was related to choosing abortion. This finding supports previous research indicating that indirect, or normative, influences affect teenagers' decisions about how to resolve a pregnancy.<sup>14</sup> Families where either motherhood or abortion is the "norm" are far more likely to be accepting of these outcomes.<sup>15</sup>

The findings suggest that abortion service providers and pregnancy counselors must be aware of the extent to which significant others within the family are indirectly involved in the resolution of teenage pregnancies—that is, the past decisions of others within the family may shape the way in which a teenage pregnancy is resolved. It must also be recognized that a young woman's partner is often directly involved in this decision, and as such his influence should be considered when young women's decisions are being discussed.

The data used for this analysis have limitations. First, because of the data collection design, it was not possible to calculate response rates based on different respondent characteristics. A second limitation is that the survey was retrospective—it asked teenagers about aspects of their decision-making after they had made the decision. In the case of the motherhood group, the length of time between their pregnancy and their participation in the

survey was longer (up to 18 months) than for those in the abortion group, for whom the time lag was a couple of weeks. This could lead to both underreporting and overreporting of the influence of others. For example, some young women may have forgotten some of what influenced their decision-making during their pregnancy. Also, young women who are not yet comfortable with their decision may overstate the influence of others.

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