Economic Crisis and Women's Childbearing Motivations: The Induced Abortion Response of Women on Public Assistance

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This study examines whether welfare reform and other indicators of financial hardship influence women's childbearing motivations and abortion acceptability and whether the latter serve to affect abortion behavior. The conceptual framework adopted to answer the study questions is drawn from the crisis models of Bloom and Reichert (1998) and A. R. Roberts (1991, 2000, 2005) and applied to induced abortion using scales developed by Miller (1992). Using data on a random sample of 1,236 women from the New Jersey's welfare reform experiment, the study finds some evidence that New Jersey's welfare reform (which contained a family cap and a rigorous JOBS program) has served to make abortions more acceptable, which in turn leads to a higher likelihood of induced abortions. [*Brief Treatment and Crisis Intervention* 6:52–65 (2006)]

KEY WORDS: welfare reform, abortion attitudes, childbearing attitudes, crisis model, crisis state, induced abortion.

There are few individuals who would disagree with the assertion that women receiving public welfare face a world of almost daily crisis. Whether this crisis is self-inflicted as some have contended (Mead, 1985; Murray, 1984) or not (Wilson, 1981), the financial and emotional suffering is very real, resulting in disproportionate levels of depression (Coiro, 2001; Lennon, Blome, & English, 2002), anxiety (Kendrick, 1999), substance abuse (Bassuk, Buckner, Perloff, & Bassuk, 1998; Williams & Adams-Campbell, 2000), and somatic complaints and health problems (D'Arcy & Siddique, 1985; Gyamfi, Brooks-Gunn, & Jackson, 2001).

Since the passage of the Family Support Act of 1988 and continuing through the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, life on public assistance has been made far more difficult. Mandatory work requirements, time limits on the receipt of welfare benefits, and family caps (i.e., the exclusion of children from the welfare grant if the child was conceived by a mother while on

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welfare) have served to ratchet up recipients' stress as they attempt to balance job search and child care, sparse personal resources, and life without government subsidy.

In this paper, I examine the role that welfare reform plays in the decision of pregnant women on public assistance to end a pregnancy with induced abortion. I explore this relationship employing crisis models proposed by Bloom and Reichert (1998) and A. R. Roberts (1991, 2000) and applied to induced abortion by Miller (1992). I use a random sample of 1,236 women on public assistance in New Jersey to (a) examine the direct contribution of welfare reform in altering women's attitudes toward abortion and childbearing and (b) assess the direct and indirect effect of welfare reform on women's decision to terminate a pregnancy.

The empirical examination of the role of welfare reform as a crisis precipitator is greatly facilitated by several features of the study's research design. Most important is the use of an experimental design with recipients randomly assigned into a welfare reform treatment or a no-reform control condition. Hence, the study design allows the manipulation of the treatment, minimizing the incidence of recipients who are exposed to both welfare reform and nonreformed public assistance conditions. An additional strength of the study is the measurement of abortion through Medicaid claims files rather than highly unreliable self-reports (Jagannathan, 2001; Jones & Forrest, 1992). Because New Jersey is one of the states that funds abortions under Medicaid, irrespective of the reason for the abortion, the study's outcome measure is less prone to measurement error.

Conceptual Framework—A Crisis Model of Induced Abortion

One of the primary goals of welfare reform is to reduce the frequency of pregnancy while a woman receives public assistance (Moffitt & Ver Ploeg, 2001; U.S. General Accounting Office, 2001). This goal can be achieved through abstinence or the use of contraception (Chavkin, Romero, & Wise, 2002); however, it can also be achieved by converting pregnancy into unwanted pregnancy (Horvath-Rose & Peters, 2001; Jagannathan & Camasso, 2003). Although much has been written about psychological stress and distress that accompany the decision to abort (see, e.g., Major et al., 2000; Mueller & Major, 1989; Pope, Adler, & Tschann, 2001), much less has been published on the psychological antecedents of abortions and their pliancy under conditions of financial distress.

A useful conceptual vehicle for initiating such an investigation is the seven-stage crisis intervention model developed by A. R. Roberts (1991, 2000, 2005) and the links made by Bloom and Reichert (1998) between traumatogenic forces in society and social and individual stresses. A. R. Roberts (2000, 2005) defines a crisis as a period of psychological disequilibrium experienced as a result of a hazardous event that cannot be remedied by using familiar coping strategies. As A. R. Roberts (1991, 2000) notes, the disequilibrium has an acute stage, that is, a crisis reaction, that can leave an individual with feelings of helplessness, confusion, shock, anger, anxiety, serious depression, and disbelief. It is not difficult to imagine a poor woman experiencing the gamut of such emotions upon hearing that her unborn child, if carried to term, will not be eligible for public assistance. Within this crisis model formulation the decision to abort can be seen as providing a reduction in psychological disequilibrium and a sense of relief, although for some women receiving public welfare, this relief may be quite short lived.

The A. R. Roberts (1991, 2000) crisis framework dovetails nicely with the argument of Bloom and Reichert (1998) that social forces can

promote and sustain behavior, which, in turn, can trigger individual crisis states. Within the Bloom and Reichert perspective, it can be argued that welfare reform acts as a triggering event to financial crisis and can be linked to the ensuing trauma, through the following process:

1. Social forces promote and sustain behavior that triggers individual crisis states.
2. Welfare reform (with its family cap) is a social policy that acts as a traumatogenic social force in the lives of pregnant women on welfare—it places them at risk of a poor mental health outcome or a poor financial outcome.
3. As a crisis event source, welfare reform precipitates a financial crisis for women who get pregnant while on welfare.
4. Pregnant women on welfare are forced to choose between adequate financial support or giving birth to a child, which will exacerbate the family's financial needs.
5. When women are induced to abort in order to meet basic economic needs, such women are likely to experience traumatic reactions based on their decision.
6. Reproductive freedom is a societal force that acts as a protective factor for pregnant women on welfare.

Empirical Framework

The empirical application of the crisis model is made using the work of Miller (1992, 1994). Miller's (1992) contribution to the formulation of the crisis model is to posit the notion that the intention to abort is a function of a set of predisposing childbearing motivations and abortion acceptability attitudes. Hence, how a woman will respond to a crisis is a function of the balance among positive childbearing motivations (PCM), negative childbearing motivations (NCM), and abortion acceptability. In this paper, I contend that the economic emergency brought on by welfare reform can influence this balance of motivations and attitudes and indeed can serve as a turning point in a pregnant-woman-on-welfare's decision to undergo induced abortion (A. R. Roberts, 2005).

Study Model and Hypotheses

Specifically, the following hypotheses are tested in this paper.

1. Do welfare reform and other indicators of financial hardship act as a "last straw" compelling women to alter their attitudes toward abortion acceptability and childbearing motivations?
2. Do welfare reform and other indicators of financial hardship directly influence women's decisions to seek induced abortions?
3. Do abortion attitudes and childbearing motivations influence women's decisions to seek abortions?

The hypothesized relationships among welfare reform, psychological antecedents, and induced abortion are displayed in Figure 1. In this figure we see that the hazardous or triggering event, pregnancy while on public assistance, serves to moderate a linkage between the provisions of welfare reform and other indicators of economic crisis (2) on the one hand and childbearing motivations and abortion acceptability attitudes on the other (3). For example, when a pregnant woman subject to New Jersey's welfare reform (which consists of a more rigorous JOBS program and a family cap) is confronted by the potential loss in benefits of $102.00 per month for a second child or $64.00
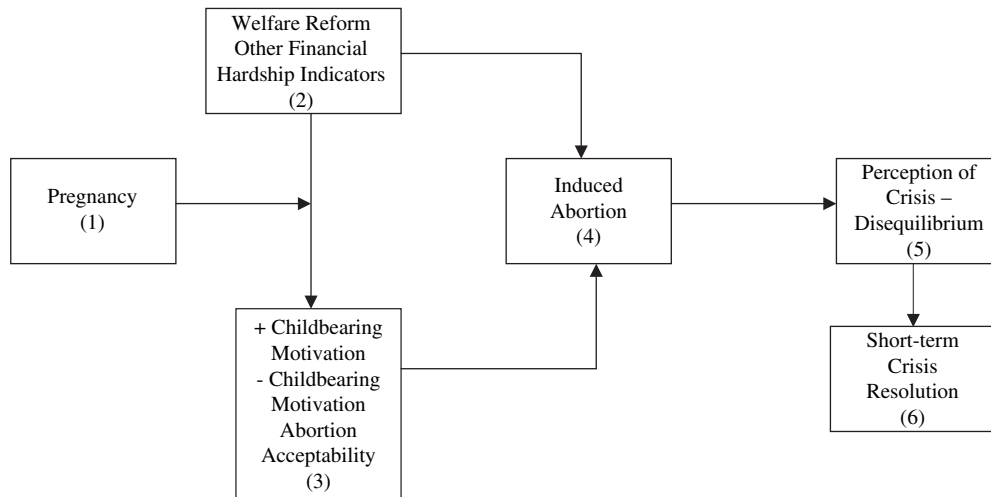
FIGURE 1
Crisis model of the psychological antecedents of induced abortion.

for any subsequent child conceived on welfare, it is reasonable to conjecture that negative childbearing attitudes will outweigh positive motivations, ceteris paribus. The model in Figure 1 also indicates that welfare reform, both directly through changes in available resources and indirectly through changes in motivations and attitudes, increases a woman's likelihood of seeking an abortion as a means of reducing looming financial distress.

The Study Method

Data and Sample

The data used in this study originate from a 5-year study of a welfare reform experiment in New Jersey conducted from 1992 through 1996 by Rutgers University. The use of an experimental design, with a group of control recipients unaffected by the treatments, has a number of advantages over other research designs, not the least of which is a clear counterfactual condition (Lalonde, 1986; Orr, 1999). In the New Jersey reform experiment samples were drawn from the 10 largest welfare counties that

account for 85% of the state's welfare caseload. Women were drawn from two distinct groups within each county's welfare population:

1. Families who were active on public welfare (Aid to Families with Dependent Children) when the family cap was implemented on October 1, 1992, and
2. Families who were certified for welfare receipt between October 1, 1992, and December, 1994.

Random assignment to experimental and control groups was based on the last four digits of the welfare payee's social security number. The assignment process began in October 1992 and was completed in December 1994 and yielded a total sample of 8,379 welfare clients. A random sample of 3,000 recipients was drawn from the experiment in the summer of 1995, 1,236 of whom completed a detailed client survey. The measures of abortion acceptability and childbearing motivations were among the items included in the survey instrument that was administered either face-to-face or by telephone. The focus here is on the 405 women who were pregnant at the time of the survey administration. The survey contained

an extensive fertility component that recorded respondent's pregnancy history using the format employed by the National Survey of Family Growth. Although the survey instrument was the principle tool used to collect information on pregnancy and childbearing attitudes and motivations [(1) and (3) in Figure 1], information on welfare reform, client demographic background, financial distress, and induced abortion was gleaned from administrative sources. In the case of abortion, the data source was the Medicaid claims file. Inasmuch as New Jersey is one of the states that pays for all abortions, regardless of reason, if women are on public assistance, these data are quite complete. Reform status, financial, and demographic information was taken from the state's Department of Family Development (Welfare) caseload and payment files.

Variable Measures

The measures of PCM and NCM were taken from Miller's (1994) Childbearing Questionnaire. PCM is captured by 20 items designed to elicit positive or desirable consequences about pregnancy and childbearing. NCM is obtained from 18 items on this same Childbearing Questionnaire. Both sets of items are coded as dichotomous outcomes with the reason noted as an *important consideration* = 1 and as an *unimportant consideration* = 2. Items in the PCM and NCM were combined separately for each scale in accordance with the scaling procedures recommended by Miller. The PCM and NCM scales are coded in such a way that high scores on the scales indicate a more positive motivation toward childbearing. Both the PCM and NCM have demonstrated internal consistency reliability (Cronbach's alpha well above 0.85); however, the measurement quality is restricted for the most part to applications on White, married, nonpoor women (Miller & Pasta, 1993; Singh & Williams, 1983). Tests of

either scale's properties on non-White or poor women have not been published. The current study is the first to use these scales in the context of a significantly different population, that is, poor and minority women. The reliability coefficient calculated in the current study for the PCM is 0.88 and that of NCM is 0.82, numbers that are quite comparable to published reliability measures from other populations.

In Table 1, I present the items that comprise the PCM, cross-classified by the race/ethnicity of the welfare recipient. It is clear from this table that there is considerable variability in response among items and that this variability is often contingent on race. For example, whereas 52.8% of Hispanic women state that "having a child who will support me later in life" is a positive reason for conceiving a child, only 21.2% of White women give this motivation. About 40% of Black women provide this answer.

Table 2 presents the items that comprise the NCM scale. Here we also see variation in the reasons women give for not becoming pregnant, and once again, these reasons are often conditioned by race/ethnicity. About 31% of White women cite "experiencing pain of childbirth" as a reason for avoiding a pregnancy, a percentage that is about half that of the Hispanic and Black respondents.

Attitudes of abortion acceptability are measured using a series of 11 items contained in the Abortion Decision Questionnaire (ADQ) constructed by Miller (1994). Responses describing the reasons why a woman might want to end a pregnancy through induced abortion are measured on a three-point scale with *acceptable* = 1, *unsure* = 2, and *unacceptable* = 3. Items comprising ADQ are combined in the fashion suggested by Miller (1992), with low scores on the scale indicating more abortion acceptability. Miller (1994) reports a reliability coefficient (Cronbach's alpha) of 0.80 for ADQ and evidence of construct validity of 0.21 between

TABLE 1. PCM by Race/Ethnicity

Survey question: Listed below are some of the reasons women give for becoming pregnant and having a child. Which of these reasons were important to you the last time you became pregnant?

	Responding important (%)		
Reason	White	Black	Hispanic
Feeling a baby move inside me	76.5	77.2	82.7
Giving my partner the joy of fatherhood**	53.9	59.1	73.3
Giving birth to a baby	84.3	81.8	73.3
Holding and cuddling a baby	92.3	82.2	83.8
Devoting myself to raising children	84.6	84.3	86.5
Having a child who will carry on my values	82.4	83.6	78.7
Strengthening my relationship with my partner	46	48.9	51.4
Being the center of a large family**	40.4	30.6	54.2
Fulfilling my religious beliefs about family life	45.1	46.2	57.5
Providing my parents with a grandchild**	40.8	42	60
Having a child who will be successful in life	82.7	78.9	85.3
Playing with my child*	94.2	82.2	85.3
Teaching and guiding my child	96.2	91.3	87.8
Feeling needed and useful through my baby	65.4	76.4	79.7
Having a child who will support me later in life**	21.2	39.9	52.8
Feeling more complete as a woman**	28.9	50.7	65.3
Having a son**	42.3	46.9	62.2
Having a daughter**	46.2	50.4	67.1
Having my friends admire me with my baby**	13.5	19.2	46
Getting additional financial support*	15.7	27.9	32.9
Number of respondents	52	278	75

Note. PCM = positive childbearing motivations.
*Indicates statistically significant chi-square at $.05 < p < .1$.
**Indicates statistically significant chi-square at $p < .05$.

the ADQ abortion attitude scale and actual abortions (Miller, 1994). The ADQ scale has not been tested extensively across diverse populations, and there are no published reports of its use with predominantly low-income or minority samples; however, in this study, the reliability coefficient (Cronbach's alpha) was calculated to be 0.80, with a validity coefficient of 0.22.

The items that make ADQ are shown in Table 3. As in the case of PCM and NCM, the ADQ items exhibit variation that can be very distinctive by race/ethnicity. This is illustrated well by the item "the baby would cause financial hardship." Nearly 83% of White women find this to be an unacceptable reason

for terminating a pregnancy, whereas 64% of Black women and 61% of Hispanic women find this to be unacceptable.

It should be noted here that an additional item "the pregnancy violates new welfare rules" was added to the ADQ measures to reflect the nature of the study. Analysis with and without the item (available from the author) does not change either the reliability or the validity of ADQ or any inferences made in this paper.

Measures of a respondent's welfare reform status, other indicators of financial hardship, and demographic characteristics were coded directly from administrative records at the time the respondent entered the experiment. If the

TABLE 2. NCM by Race/Ethnicity

Survey question: Listed below are a number of reasons women give for not wanting to become pregnant. Which of these reasons do you feel are important when considering to avoid a pregnancy?

	Responding important (%)		
Reason	White	Black	Hispanic
The discomforts of pregnancy**	34.6	53.7	48
Experiencing pain of childbirth**	30.8	57.8	57.3
Worrying about the health and safety of the child	78.4	85.8	78.4
To avoid embarrassing my family*	11.5	21.7	27.8
Being kept from a job or career by a baby	52	64.1	60.8
Having to put up with the mess and noise that a baby makes**	19.2	33.3	40
Finding adequate child care	73.1	80.8	77.3
Not having adequate finances to raise the child**	84.3	87.7	74.3
Losing freedom to do other things	30	41.8	47.3
Getting too old**	52	62.2	44.4
Taking care of a sick baby*	54	68.4	60.8
Having a baby who strains my health**	56	70.9	51.4
Having a baby who strains my relationship with my partner	36.1	30.2	34.1
No additional cash benefits for the child under the new welfare rules*	32.6	34.6	40.3
Being responsible for another life**	66	82.5	77
Don't feel ready**	73.1	80.4	67.6
Having a baby who makes it necessary to find a job to support the child	74	77.8	73
Having a baby will ruin my figure**	7.7	15.9	28
Number of respondents	52	278	75

Note. NCM = negative childbearing motivations.
*Indicates statistically significant chi-square at $.05 < p < .1$.
**Indicates statistically significant chi-square at $p < .05$.

respondent was assigned to the welfare reform group with its enhanced JOBS and family cap conditions, experimental status equaled 1, otherwise experimental status equaled 0. Three indicators of financial hardship were used: (a) respondent's employment status (*employed* = 1, *otherwise* = 0), (b) respondent's welfare history (*acute user of welfare* = 1, *chronic user of welfare* = 0), and (c) respondent's household size. Acute users averaged less than 6 quarters on public assistance, whereas chronic users averaged more than 12 quarters. Household size was simply measured as the number of individuals (primarily children) living with the respondent.

The demographic characteristics measured in the study include respondent's age, education level, marital status, and race/ethnicity. Both age and education were measured in years. Marital status was coded as a simple dichotomy with *never married status* = 1 and *all others* = 0. Three racial groups were identified—Black, Hispanic, and White. For purposes of analysis,

TABLE 3. Abortion Attitudes (ADQ) by Race/Ethnicity

Survey question: There are a number of reasons why a woman might want to end a pregnancy. In your opinion which of the following are acceptable reasons for ending a pregnancy?

	Responding abortion unacceptable (%)		
Reasons	White	Black	Hispanic
Don't feel ready to have a child**	61.5	36	52
The birth would threaten your life**	28.9	25.2	41.3
The baby has a birth defect	53.9	56.1	50.7
There are relationship problems between you and the father of the baby**	84.6	83.8	61.3
It is an accidental or unplanned pregnancy	69.2	68	61.3
The pregnancy violates new welfare rules**	98.1	86.7	77.3
The baby would cause financial hardship**	82.7	64.8	61.3
Rape or incest**	30.8	22.3	42.7
Family asked me to**	96.2	91	80
Don't want another baby**	73.1	43.9	61.3
Feel too old to raise a baby*	80.8	68.7	76
Not married**	88.5	80.9	74.7
Number of respondents	52	278	75

Note. ADQ = Abortion Decision Questionnaire.
*Indicates statistically significant chi-square at $.05 < p < .1$.
**Indicates statistically significant chi-square at $p < .05$.

race was coded as two dummy variables with White serving as the reference category.

Induced abortion was coded from Medicaid claims files on a quarterly basis from the time of the client interview to the end of the experiment. If a woman had an abortion in a quarter this variable received a value of 1, otherwise the value was 0.

Table 4 provides distribution information on the variables used in the crisis model test. Here we see that the typical respondent was about 28 years old, had completed 11.5 years of school, was never married, lived in a household with over four occupants, and was more likely to be Black. Fifty-five percent of pregnant respondents had an induced abortion.

Analytic Strategy

The test of the crisis model of induced abortion proceeded through two stages. The first stage tests Hypothesis 1—the link between welfare

reform and other indicators of financial hardship on the one hand and abortion acceptability and childbearing attitudes on the other. Accordingly, in the first stage, ordinary least squares (OLS) regressions with the ADQ, PCM, and NCM as the dependent variables were estimated. In these instances welfare reform status, indicators of financial distress, and demographic characteristics serve as the predictors. The second stage tests Hypotheses 2 and 3 and employs logistic regression to estimate the effects of ADQ, PCM, NCM, welfare reform, financial, and demographic indicators on the respondent's likelihood of a woman having undergone an induced abortion procedure.

Results

Hypothesis 1

The first-stage OLS regression results are presented in Table 5. Results for the regression

TABLE 4. Means (and *SD*) of Analysis Variables—Pregnant Women in the Survey Sample

Variable	N	Mean (*SD*)
Welfare reform		
Welfare experimental status (% in experimental group)	405	59.7 (4.9)
Other indicators of financial hardship		
Employed (%)	405	58.3 (4.9)
Chronic or acute welfare recipient (% acute)	405	43.5 (5.0)
Household size (No. of people)	401	4.33 (1.63)
Demographic characteristics		
Age (in years)	405	27.8 (6.23)
Education (in years)	394	11.5 (1.76)
Never married (%)	405	75.3 (4.3)
Black (%)	405	68.6 (4.6)
Hispanic (%)	405	18.5 (3.9)
Childbearing motivation and abortion		
PCM	405	12.2 (5.07)
NCM	405	10.1 (4.12)
Abortion attitude scale (ADQ)	405	29.6 (5.68)
Induced abortion	405	0.55 (0.49)

Note. PCM = positive childbearing motivations; NCM = negative childbearing motivations; ADQ = Abortion Decision Questionnaire.

of ADQ reported in the first column show that being in the experimental group lowers women's score on the ADQ scale by 1.02 points, indicating that welfare reform has the effect of making abortions more acceptable. Of the other three financial hardship indicators, only one—household size—has a statistically significant effect on abortion attitudes. Women with bigger households (more children) find abortions to be less acceptable. Demographic characteristics age and race/ethnicity also influence abortion attitudes significantly. As a woman gets older, she finds abortion to be more acceptable. Compared to White women, Black and Hispanic women find abortion to be more acceptable.

The second column of results in Table 5 shows that neither welfare reform nor any of

the financial characteristics have a significant effect on women's PCM. Women with higher levels of education have a less positive childbearing motivation, whereas Hispanic women appear to have a more positive attitude toward childbearing compared to White women.

Results from the regression of NCM shown in the third column of Table 5 are similar to the results of PCM inasmuch as only demographic variables exert a significant influence on NCM. Being older fosters women's positive attitudes toward childbearing. Compared to White women, Black and Hispanic women appear to have a more positive motivation toward childbearing.

Results displayed in Table 5 provide partial support to Hypothesis 1. As hypothesized, welfare reform and other financial hardship indicators are indicative of more acceptable attitudes toward abortion. They do not, however, alter other general childbearing motivations (PCM and NCM).

Hypotheses 2 and 3

Logistic regression results from the second stage of the analysis are presented in Table 6. Two models are estimated—the first model contains just childbearing motivation and abortion attitudes, whereas the second model adds controls for welfare reform, financial, and demographic characteristics. Odds ratios corresponding to each model are also shown on Table 6. Model 1 shows that being positively motivated toward childbearing and having a less acceptable attitude toward abortions lower women's odds of having an induced abortion by 4% and 7%, respectively. As Model 2 indicates, these results do not change much when welfare reform, financial, and demographic variables are added. Although welfare reform does not directly significantly bear on abortion behavior, financial and demographic characteristics do appear to

TABLE 5. OLS Regression of Abortion Attitudes (ADQ), PCM, and NCM on Social and Economic Crisis Factors

Variable	ADQ coefficient (SE)	PCM coefficient (SE)	NCM coefficient (SE)
Welfare reform			
Welfare experimental status (*experimental group* = 1)	−1.02* (0.58)	−0.35 (0.52)	0.15 (0.43)
Other indicators of financial hardship			
Employed (=1)	0.42 (0.61)	0.30 (0.54)	0.65 (0.45)
Chronic or acute welfare recipient (*acute* = 1)	0.27 (0.59)	−0.35 (0.53)	−0.23 (0.44)
Household size (No. of people)	0.40** (0.18)	0.09 (0.16)	−0.13 (0.13)
Demographic characteristics			
Age (in years)	−0.12** (0.05)	0.03 (0.04)	0.07* (0.04)
Education (in years)	−0.19 (0.17)	−0.44** (0.15)	−0.15 (0.13)
Marital status (*never married* = 1)	−0.94 (0.71)	−0.26 (0.64)	−0.73 (0.53)
Race/Ethnicity			
African American	−2.25** (0.91)	0.52 (0.81)	2.04** (0.67)
Hispanic	−2.31** (1.04)	1.68* (0.93)	1.36* (0.77)
Constant	36.3 (2.84)	15.91 (2.54)	9.00 (2.10)
R^2	0.07	0.05	0.05
Number of observations	389	389	389

Note. ADQ = Abortion Decision Questionnaire; PCM = positive childbearing motivations; NCM = negative childbearing motivations.
*Indicates statistically significant chi-square at $.05 < p < .1$.
**Indicates statistically significant chi-square at $p < .05$.

influence abortions. Employed women are 63% more likely to have had an abortion, whereas women who are short-term welfare users (acute) are 42% less likely to undergo abortion. Having never married increases odds of an abortion by a factor of more than 3.

These results provide partial support to Hypothesis 2 and fully support Hypothesis 3. Hypothesis 2 tests the direct effect of welfare reform and other financial hardship indicators on abortion use—here we find that although welfare reform does not have a direct effect on abortions, other financial hardship characteristics, such as employment, family size, and welfare receipt, do. Hypothesis 3, which tests the direct effects of childbearing and abortion attitudes on actual abortions, is more fully borne out by the data that show that PCM and ADQ are significant predictors of abortion use.

Discussion

Key findings from this study can be summarized as follows:

1. Welfare reform serves to make abortions more acceptable.
2. Compared to White women, Black and Hispanic women have a more positive attitude toward childbearing and abortions.
3. Women who find abortion more acceptable and those who are less positive toward childbearing are more likely to have an abortion.
4. Women who are employed and who have never married are more likely to have an abortion.
5. Short-term welfare users are less likely to have an abortion.

TABLE 6. Logistic Regression of Abortions on Abortion Attitudes (ADQ), PCM, NCM, and Social and Economic Crisis Factors

Variable	Model 1 coefficient (*SE*)	Model 1 odds ratio	Model 2 coefficient (*SE*)	Model 2 odds ratio
Childbearing and abortion attitudes				
PCM	−0.04* (0.02)	0.96	0.06** (0.02)	0.95
NCM	0.04 (0.03)	1.04	0.04 (0.03)	1.03
Abortion attitudes (ADQ)	−0.07** (0.02)	0.93	−0.06** (0.02)	0.94
Welfare reform				
Welfare experimental status			−0.20 (0.243)	0.82
(*Experimental group* = 1)				
Other indicators of financial hardship				
Employed (=1)			0.49** (0.24)	1.68
Chronic or acute welfare recipient (*acute* = 1)			−0.61** (0.24)	0.54
Household size			−0.26** (−0.07)	0.77
Demographic characteristics				
African American			0.36 (0.37)	1.43
Hispanic			0.12 (0.44)	1.12
Marital status (*never married* = 1)			1.27** (0.30)	3.58
Age (in years)			0.03 (0.02)	1.03
Education (in years)			0.06 (0.07) (0.23)	1.06
Constant	2.54 (0.70)		0.92 (1.47)	
Pseudo R^2	0.05		0.15	
Number of observations	405		390	

Note. ADQ = Abortion Decision Questionnaire; PCM = positive childbearing motivations; NCM = negative childbearing motivations.
*Indicates statistically significant chi-square at $.05 < p < .1$.
**Indicates statistically significant chi-square at $p < .05$.

This study presents some evidence to support the hypothesis that welfare reform, when measured as the requirement of a family cap and enhanced JOBS, indirectly increases the likelihood of induced abortion among women on public assistance. The pathway through which welfare reform affects abortion behavior is the reform's apparent capacity to alter abortion attitudes. The reform has the effect of lowering women's scores on the abortion attitudes scale (ADQ; Miller, 1994), an instrument that taps into the procedure's acceptability. Lower scores on ADQ indicate an increase in acceptability, which, in turn, increases the likelihood of induced abortion. Specifically, a one-point increase in abortion acceptability increases the odds of an abortion by about 7%. This study also shows that other indicators of financial hardship, for example, employment status, welfare receipt, and family size, serve as more direct predictors of abortion behavior.

The ADQ may be of use in family planning settings and in other organizations that provide reproductive counseling. The instrument can alert professionals dealing with pregnancy decisions, especially the decisions of poor women facing sanctions under welfare reform, to the sensitivity of these choices to financial crisis. If indeed reform influences the decision to abort in order to solve a short-term crisis, counselors need to be prepared for the probability of longer term psychological adjustment, which can induce self-blame, depression, somatic illness, low self-esteem (Major et al., 2000; Mueller & Major, 1989; A. R. Roberts, 2000). Such preparation on the part of counselors

becomes all the more critical given impending Temporary Assistance for Needy Families (TANF) reauthorization. Professionals may in some instances have to serve as advocates for a woman's right not to have an abortion, if that abortion appears to be coerced by state or federal welfare policy. In such cases an action plan will require alternative sources of funding to support the almost certain-to-be-excluded child if the woman chooses to bring a pregnancy to term. This stance should not be problematic from either ethical or moral standpoints, however, if reproductive freedom serves as the counselor's guiding principle.

The study also showed considerable variability across racial groups in both abortion acceptability and use. Compared to White women, minority women find abortion to be more acceptable and they are more likely to have an abortion. However, the study also finds that employment increases the odds of an abortion by 68%. An argument could be made that because White women are more likely to be employed, their abortion acceptability and use rate should be higher than minority women. One possible explanation that could reconcile this apparent contradiction for White women is that these women typically have access to more private, nongovernmental resources (e.g., through family and other social networks; Neubeck & Cazenave, 2001; D. Roberts, 1997). Hence, the attitudes of White women toward abortion and use of abortion may more likely be unaltered by the financial crisis imposed by welfare reform. Another explanation might lie in the importance that different racial groups attach to religion (Jagannathan, 2001; Smith & Seltzer, 1992, 2000). Religion was not measured in this study, and its role here cannot be evaluated.

The psychometric properties of the scales used in the current study, the PCM, NCM, and ADQ, although well established when administered to high-income, White populations, are relatively unknown in their use on poor and minority populations. The current study is the first to apply these scales to the latter population, and it is heartening to see that the reliability coefficients for the PCM, NCM, and ADQ and the validity coefficient for the ADQ calculated in this study population of predominantly minority women are quite similar to that found with White, middle-class populations.

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