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# Associations between voluntary and involuntary forms of perinatal loss and child maltreatment among low-income mothers

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**Abstract**

*Aim:* This study explored maternal history of perinatal loss relative to risk of child physical abuse and neglect. *Methods:* The 518 study participants included 118 abusive mothers, 119 neglecting mothers, and 281 mothers with no known history of child maltreatment. Interviews and observations were conducted in the participants' homes, and comparisons were made between women without a history of perinatal loss and women with one and multiple losses relative to risk for child maltreatment. *Results:* Compared to women with no history of perinatal loss, those with one loss (voluntary or involuntary) had a 99% higher risk for child physical abuse, and women with multiple losses were 189% more likely to physically abuse their children. Compared to women with no history of induced abortion, those with one prior abortion had a 144% higher risk for child physical abuse. Finally, maternal history of multiple miscarriages and/or stillbirths compared to no history was associated with a 1237% increased risk of physical abuse and a 605% increased risk of neglect.

**Conclusion:** Perinatal loss may be a marker for elevated risk of child physical abuse, and this information is potentially useful to child maltreatment prevention and intervention efforts.

**Key Words:** *Child abuse and neglect, abortion, miscarriage, stillbirth*

## Background

Pregnancy loss through miscarriage, stillbirth, and induced abortion has been linked with pronounced psychological problems in at least 10–25% of women [1–3]. Among those negatively impacted by voluntary and involuntary forms of perinatal loss, many stress-related responses have been identified including grief reactions [4,5], anxiety [6,7], depression [8,9], sleep disturbances [10,11], post-traumatic stress disorder symptoms [12,13], and, in the case of induced abortion only, increased risk of substance use [14,15] and suicide [16].

Emotional difficulties and unresolved grief responses associated with perinatal loss may hinder effective parenting by reducing parental responsiveness to child needs [1,17], interfering with attachment processes [18], instilling anger, which is a common component of grief [19], or by increasing parental anxiety about child well-being [17]. The existing studies, designed to examine relations between maternal history of perinatal loss and aberrant parenting behavior, have focused nearly exclusively on either involuntary forms of loss (miscarriage and stillbirth) or voluntary forms of loss (induced abortion) with comparison studies currently absent from the published research. One study did reveal an elevated risk of child abuse with both types of perinatal loss; however, due to data constraints, no distinction was made between stillbirth and induced abortion in assessing risk [20].

In a study of parents of stillborn infants, Phillips found that both mothers and fathers frequently showed low levels of pleasure and attachment in conjunction with a subsequent pregnancy [21]. Involuntary perinatal loss has also been found to be associated with heightened risk for child abuse [22]. Paradoxically, other studies of involuntary loss indicate a higher risk for over-protective parenting behavior as well as an inclination to become excessively concerned about the

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physical health of surviving children [17]. Finally, due to lingering parental grief, children born to mothers with a history of involuntary forms of perinatal loss are apparently more prone than children of mothers without such a history to experiencing emotional and behavioral problems [17,21].

The link between voluntary perinatal loss and parenting behaviors has been less systematically examined, presumably because of the generally held belief that women who freely choose termination are unlikely to be negatively affected [23]. However, recent research on the psychological effects of abortion suggests that this assumption may be ill founded [2,5,6,8,10,13–16] as women who opt for abortion often do so with much ambivalence and under the pressure of others and/or situational constraints [24]. Nevertheless, a few recent studies have identified relations between maternal history of abortion and problematic parenting, including lower emotional support and heightened risk for both child abuse and neglect [18,20,23].

While both voluntary and involuntary forms of loss have been found to be associated with adverse psychological effects as described above, there are several reasons to believe that induced abortion may have a more pronounced negative impact on women's mental health and parenting behavior. First, because abortion is a voluntary act, many women may experience a considerable amount of guilt, with moral or religious conflicts likely to precipitate such feelings [24,25]. Abortion-related guilt has been estimated to range from 29.7% to over 75% [24,25]. Second, professionals who work with women who have experienced a miscarriage or stillbirth are inclined to encourage healing focusing on the loss of the fetus [12], but this is rarely a part of routine post-abortion care. Third, feelings of shame and secrecy that may surround an abortion experience might preclude reaching out to others for needed support, and studies clearly suggest that the presence of a continuously available, informed, and sympathetic social support system is a vital component to recovery for the bereaved [26]. Fourth, although very few studies have examined the long-term effects of abortion, miscarriage, and stillbirth, there is some preliminary evidence indicating that negative abortion-related emotions are more difficult to resolve than those associated with involuntary forms of loss. For example, a Norwegian team of researchers led by Broen [27] recently reported that women who had an abortion 2 y earlier were more likely than those who had miscarried to be suppressing thoughts and feelings about the event. Specifically, nearly 17% of 80 women who had an abortion scored highly on a scale measuring avoidance symptoms, compared with about 3% of those who miscarried.

The purpose of this study was to explore the extent to which perinatal loss operates as a risk factor for child physical abuse and neglect. Based on the previously reviewed literature, the following hypotheses were tested: (1) women with a history of one perinatal loss, when compared to women without a prior perinatal loss, were expected to be at a higher risk for engaging in child physical abuse and neglect; (2) when examined separately, both maternal history of one induced abortion and maternal history of one miscarriage/stillbirth were hypothesized to be associated with a higher risk for both child physical abuse and neglect than not having experienced either form of loss; and (3) induced abortion was expected to be associated with a greater risk for both forms of maltreatment when compared to miscarriage and stillbirth. Various environmental, personal, and social factors enhance the risk for child maltreatment [28]; therefore, many variables (described below) were explored as potential covariates to be included in the primary analyses. Finally, exploratory analyses were conducted to examine the extent to which risk for child maltreatment is elevated when women experience more than one perinatal loss compared to no prior losses. Very little previous research attention has focused on multiple losses, precluding specific hypotheses pertaining to possible associations between multiple perinatal losses and elevated risk for child maltreatment.

## Material and methods

### *Participants*

The respondents in this study consisted of 518 women who were residents of Baltimore, Maryland, in the mid-1980s and were receiving Aid to Families with Dependent Children (AFDC). Each participant had at least one living child age 12 or under. Exactly 100 women (19.3%) had experienced one abortion, and 59 women (11.4%) experienced two or more abortions; whereas 99 women (19.1%) had experienced one miscarriage or stillbirth, and 34 women (6.6%) had experienced multiple miscarriages or stillbirths. The majority of the participants were single (78.8%), with the remainder separated from spouses (18.9%) or married (2.3%). The 518 study participants included 118 abusive mothers, 119 neglecting mothers, and 281 mothers who had no history of substantiated child maltreatment offences. At the time of testing, the participants ranged in age from 18 to 50 y (mean 27.31, SD 5.65). The average number of children was 2.64 (SD 1.71), with a range extending from 1 to 11. The sample was predominantly Black (79.9%), with 19.7% White, and 0.4% Asian or Native American. At the time of testing, only 6.8% of the sample was working (3.1% fulltime). Fifty-nine percent of the participants had 11 or fewer years of formal education, 32% only finished high school or earned a GED, and 9% had 13 to 16 y of formal education. For the 100 women who had experienced one prior abortion,

a mean of 6.50 (SD 4.11) y had elapsed since the procedure; whereas for the 99 women who had experienced a miscarriage or stillbirth, a mean of 7.16 (SD 5.37) y had elapsed since the loss.

*Data description and procedure*

*Data source.* The data used in this investigation were from the Fertility and Contraception among Low-Income Child Abusing and Neglecting Mothers in Baltimore, MD 1984–1985 Study [29]. The data were made available for public use at the Data Archive on Adolescent Pregnancy and Pregnancy Prevention, Sociometrics Corporation, Los Altos, California, by the principle investigator, Susan J. Zuravin, University of Maryland at Baltimore. Funding to prepare the data for public distribution was provided by a contract between the U.S. Office of Public Affairs and Sociometrics Corporation to Josefina J. Card and Associates (Contract No. 287-87-0062). The original purpose of the study was to derive information regarding family patterns and contraceptive behavior among mothers who personally neglect their children and mothers who either physically abuse their children or allow someone else to do so. The original investigator, funding agency, and the Data Archive do not bear any responsibility for the analysis or interpretation of data offered in this report.

*Physical abuse segment.* The 118 mothers comprising the final physical abuse segment were self-selected from a sample of 152 abusive mothers (78% interview completion rate) who were identified from a cohort of 1744 families receiving Child Protection Services (CPS) from the Baltimore City Department of Social Services (BCDSS) during January 1984. All women who were known or suspected abusers were included in the original sample of 152 mothers in addition to a random sample of remaining cases where someone else was known or suspected of being the abuser. The operational definition of physical abuse used in this study was as follows: "Respondent had as of January 1984 at least one natural child who was the victim of excessive inappropriate physical force by the respondent herself and/or another caretaker and, as a result of the force, sustained injuries at a minimum severity level of 4 on the 6-point Magura-Moses Physical Discipline Scale" [29, p. E5-2]. Severity-level 4 injuries include bruises, welts, cuts, abrasions, or first-degree burns that are restricted to one or two bodily areas. The principle investigator reported that information derived from CPS case records of 105 of the abusive respondents revealed that, in 59% of the situations, the mother was the one who inflicted the injuries and, for 60% of the situations, child neglect was also a problem. Finally, 39% of the injuries were mild, involving injuries not requiring medical intervention such as bruises, welts, and abrasions; 45.7% of the situations involved moderate injuries such as second-degree burns, mild concussions, breaks of small bones, etc.; and 15.2% of the situations were classified as severe, involving third-degree burns, internal injuries, severe concussions, breaks of long bones, etc. [29].

*Neglect segment.* The 119 mothers included in the final neglect segment were self-selected from a sample of 164 neglectful mothers (73% interview completion rate) who were identified from the same cohort of families receiving CPS from the BCDSS during January 1984 that was used to identify the abusive mothers. The original sample of 164 neglecting mothers was constructed by including all identified Caucasian women and a random sample of non-Caucasian families. The operational definition of neglect used in the study was as follows: "Respondents neglected one or more children in at least one of the following eight areas: physical health care, mental health care, nutrition/diet, personal hygiene, household sanitation, physical safety in the home, supervision of activities, and arrangements for substitute childcare. In addition, as of January 1984, the respondent had no children who met the study definition for physical abuse." Information derived from CPS case records of 102 neglecting respondents reported by the principle investigator indicated that the two most common forms of neglect were inadequate physical health care (48%) and inadequate supervision (44%) [29]. In addition, 75% of the cases involved at least two types of neglect and, in 36% of the situations, the child had experienced adverse consequences due to the neglect [29].

*Non-maltreating segment.* Two hundred and eighty-one participants comprised the non-maltreating segment of the sample. They were self-selected from among 376 AFDC recipients (75% interview completion rate). The 376 AFDC recipients were a random sample drawn from the 37 158 families who were receiving AFDC but not CPS. To qualify for inclusion, the participants had to meet the following definition of adequate childcare: "Never had a child who was the subject of a report of physical abuse and has never been a recipient of any of the welfare services provided by BCDSS including CPS, foster care, services to families with children, or single parent services." [29, p. E5-2].

*Data collection.* The data were collected in 1984 and 1985 during personal interviews in the respondents' homes. The original questionnaire consisted of 1372 closed-end items that assessed demographic information as well as issues related to childhood experiences, mental health problems, substance use, employment aspirations, marital relationships,

self-esteem, reproductive history, and family planning behaviors. In addition, at the end of the assessment, the interviewers recorded several behavioral observations based on their experiences conducting the interviews. The entire measure was administered in approximately 90 min by 10 female interviewers who were blind to the participants' child maltreatment status. The specific variables used in this study are described below.

*Potential covariates extracted.* Several single-item variables from the interview data were extracted and explored as potential covariates. These included the following: age, marital history, race, years of schooling, how religious the respondent reported being, attendance at religious services, number of children, number of residences in past 5 y, size of residence, neighborhood quality, employment status, worries about income, number of parents in the household during mother's childhood, presence in the mother's youth of someone she felt comfortable sharing problems, current presence of someone to share personal problems, tendency to spend time alone/with others, history of depression lasting 2 wk or more, and history of ever engaging in alcohol binges. In addition, the following four interviewer observation variables were examined as possible covariates: interviewer-estimated intelligence, mother's understanding of interview questions, sadness/dejected posture, and general enthusiasm/interest.

## Results

In order to examine the strength of relations between maternal history of perinatal loss (voluntary and involuntary) and child physical abuse and neglect, several logistic regression analyses were conducted. In the analyses focusing on miscarriage/stillbirth, history of induced abortion was statistically controlled and, in the analyses focusing on induced abortion, history of miscarriage/stillbirth was statistically controlled. Further, the following demographic, personal history, and social variables, which were found to be positively correlated with physical abuse, were entered as covariates into the analyses using this variable as the outcome measure: more residences in the last 5 y ($p=0.001$), more children ($p<0.0001$), frequent worries regarding income ($p=0.003$), more schooling ($p=0.003$), older age ($p=0.009$), history of depression lasting 2 wk or more ($p=0.019$), history of one or more alcohol binges ($p=0.003$), White race ($p=0.005$), lower than average interviewer-estimated intelligence ($p<0.0001$), sad appearance/dejected posture during the interview ($p=0.001$), and difficulty understanding the interview questions ($p=0.004$). Finally, the following demographic, personal history, and social variables, which were found to be positively correlated with neglect, were employed as covariates in the analyses using neglect as the dependent variable: more residences in last 5 y ($p<0.0001$), more people living in the household ($p=0.001$), more children ($p<0.0001$), currently unemployed ($p=0.001$), history of marriage ($p=0.002$), older age ($p<0.0001$), tendency to spend time alone rather than with others ($p=0.001$), history of depression lasting 2 wk or more ($p<0.0001$), history of one or more alcohol binges ($p<0.0001$), having no one to share personal problems ($p<0.0001$), White race ($p<0.0001$), lower than average interviewer-estimated intelligence ($p<0.0001$), a sad appearance/dejected posture during the interview ($p<0.0001$), and difficulty understanding the interview questions ($p<0.0001$).

The first hypothesis predicted that a maternal history of perinatal loss would be associated with elevated risk of child physical abuse and neglect. The results of the regression analyses conducted to test this hypothesis are presented in Table I. Support was partially obtained for this hypothesis as there was a 99% higher risk for physical abuse when the participants had experienced a voluntary or an involuntary perinatal loss; however, a significant effect was not detected for child neglect.

Partial support for the second hypothesis, which predicted significant associations between maternal history of one induced abortion and one miscarriage or stillbirth and both child physical abuse and neglect, was obtained based on a significant association between maternal history of induced abortion and child physical abuse (see Table I). Women with a history of induced abortion were 144% more likely to physically abuse their children than women without a history of induced abortion. The experience of one induced abortion was not associated with elevated risk for neglect, and there were not any significant effects detected between history of one miscarriage and either form of child maltreatment.

Finally, the third hypothesis entailed a prediction that history of one induced abortion would function as a more serious risk factor for child maltreatment than history of one miscarriage or stillbirth. This hypothesis was partially supported based on the fact that a greater risk was observed between maternal history of induced abortion and child physical abuse compared to maternal history of miscarriage/stillbirth and child physical abuse.

Exploratory analyses were conducted to examine the relative risk of child maltreatment based on multiple perinatal losses versus no history of losses (see Table II). The results revealed that history of multiple losses (at least one abortion and one miscarriage/stillbirth) was related to a 139% greater risk for child physical abuse; however, multiple losses encompassing both voluntary and involuntary losses were not associated with elevated risk of neglect. Multiple induced abortions were not related to significant increased risk

Table I. Results of logistic regression analyses comparing women without a history of perinatal loss to women with one perinatal loss of any form, one abortion, and one miscarriage or stillbirth.

| | Odds ratio[a], *p*-value, 95% confidence interval | |
|---|---|---|
| | Physical abuse | Neglect |
| One perinatal loss (voluntary or involuntary) | | |
| Unadjusted | 1.49, $p=0.090$, 0.94–2.37 | 2.14, $p=0.001$, 1.36–3.37 |
| Adjusted[b] | 1.99, $p=0.046$, 1.01–3.90 | 1.54, $p=0.286$, 0.699–3.37 |
| One miscarriage or stillbirth | | |
| Unadjusted | 1.55, $p=0.121$, 0.89–2.68 | 2.01, $p=0.011$, 1.18–3.44 |
| Adjusted[b] | 1.18, $p=0.709$, 0.49–2.84 | 0.44, $p=0.187$, 0.131–1.49 |
| One induced abortion | | |
| Unadjusted | 1.56, $p=0.095$, 0.93–2.63 | 1.15, $p=0.647$, 0.64–2.06 |
| Adjusted[b] | 2.44, $p=0.031$, 1.09–5.50 | 1.07, $p=0.903$, 0.37–3.10 |

[a] The reference groups for the three sets of analyses were women without a perinatal loss, women without a miscarriage or stillbirth, and women without an induced abortion, respectively.
[b] Statistical adjustment for demographic, social, and perinatal variables associated with the particular form of maltreatment.

for physical abuse or neglect; however, strong associations were observed between maternal history of multiple miscarriages/stillbirths and both child physical abuse (1237% higher risk) and neglect (605% higher risk).

## Discussion

This study was designed to examine the risk for child maltreatment based on maternal history of voluntary and involuntary forms of perinatal loss. After controlling for several demographic, personal, and social factors associated with the particular form of maltreatment (abuse or neglect), a maternal history of one miscarriage or stillbirth was not related to an elevated risk for either form of maltreatment. These findings contradict previously described research [21]; however, the earlier research did not include many controls. Miscarriage or stillbirth may not be directly related to negative outcomes, but may instead influence parenting behavior through other variables, such as partner relationship quality, depression, substance use, etc., and when these variables are controlled, the effect is lost. Support for this interpretation is provided by the unadjusted results of the present study wherein maternal history of one miscarriage or stillbirth was significantly associated with neglect. Another possible reason for the lack of associations between one involuntary loss and the two forms of child maltreatment is that negative effects of miscarriage and stillbirth tend to resolve within 2 y of the loss [27], and an average of over 7 y had elapsed since the women in this study had experienced their single loss. This explanation also helps interpret the exploratory findings of this study wherein multiple miscarriages or stillbirths were found to be strongly associated with elevated risk for both child physical abuse and neglect which stand in contrast to the results observed with one involuntary loss, because women who had more than one miscarriage or stillbirth tended to experience more recent losses. Moreover, suffering from multiple involuntary losses is logically more

Table II. Results of logistic regression analyses comparing women without a history of perinatal loss to women with a history of two or more perinatal losses, multiple abortions, and multiple miscarriages or stillbirths.

| | Odds ratio[a], *p*-value, 95% confidence interval | |
|---|---|---|
| | Physical Abuse | Neglect |
| Two or more perinatal losses (at least one voluntary and one involuntary) | | |
| Unadjusted | 2.20, $p=0.004$, 1.29–3.75 | 2.19, $p=0.005$, 1.26–3.80 |
| Adjusted[b] | 2.39, $p=0.035$, 1.07–5.36 | 1.91, $p=0.169$, 0.760–4.80 |
| Two or more miscarriages or stillbirths | | |
| Unadjusted | 3.82, $p=0.005$, 1.49–9.84 | 6.64, $p<0.0001$, 2.75–16.01 |
| Adjusted[b] | 13.37, $p=0.009$, 1.92–93.35 | 7.05, $p=0.050$, 1.00–49.68 |
| Two or more abortions | | |
| Unadjusted | 1.11, $p=0.765$, 0.55–2.24 | 1.13, $p=0.714$, 0.58–2.21 |
| Adjusted[b] | 1.30, $p=0.632$, 0.44–3.81 | 1.44, $p=0.529$, 0.46–4.46 |

[a] The reference groups for the three sets of analyses were women without a perinatal loss, women without a miscarriage or stillbirth, and women without an induced abortion, respectively.
[b] Statistical adjustment for demographic, social, and perinatal variables associated with the particular form of maltreatment.

psychologically challenging than experiencing only one, and the cumulative stress of the losses may explain the findings. A final interpretation of the discrepant results relative to one versus multiple involuntary losses is that there may be a variety of unmeasured third variables operative in the associations between multiple voluntary losses and child maltreatment including stress, relationship difficulties, physical health problems, and drug use. The findings regarding repeated involuntary loss should be viewed cautiously as only 34 women fell into this category in the current study.

Consistent with expectations, after controlling for a number of demographic, personal, and social factors associated with physical abuse, a maternal history of induced abortion was found to be associated with a 144% greater likelihood of child physical abuse. However, counter to expectations, maternal history of induced abortion was not linked with enhanced risk for neglect after the effects of a number of variables associated with neglect were controlled. The lack of significance relative to associations between both voluntary and involuntary forms of perinatal loss and neglect might be partly a function of the forms of neglect most commonly observed in the sample. Specifically, inadequate health care and inadequate supervision may be more of a function of poverty as opposed to being indicative of the mother's attitude toward the child.

The correlational nature of the design obviously precludes cause-and-effect conclusions, and there are a number of possible explanations for enhanced risk of physical abuse based on maternal history of one induced abortion. Generalized negative post-abortion emotions, such as depression or anxiety and/or adverse emotions tied specifically to the abortion (e.g., feelings of guilt or shame that could prompt feelings of not deserving a child or of not being a good mother), may compromise women's ability to effectively parent. Alternatively, it is possible that women who choose abortion are less oriented to children and/or are less interested in parenting, and it is these characteristics, as opposed to the abortion itself, which are linked with a greater chance of engaging in subsequent child physical abuse. The latter explanation seems less likely based on the finding that induced abortion is not a risk factor for neglect. If the underlying cause is disinterest in children and/or parenting, then the relation between induced abortion and neglect would seem to have a high probability of being statistically significant. On the other hand, if the underlying cause is a negative emotional reaction to the abortion experience, then an association with physical abuse might be more understandable than an association with neglect. Women who are emotionally scarred from an abortion experience might be able to go through the motions and provide basic care for their children because it does not require a great deal of psychological energy or investment. Emotional management, particularly refraining from angry outbursts leading to abuse as well as coping with parent–child conflict, however, may prove more challenging for women who have suffered psychologically from an abortion.

There are many other possibilities for the relation observed between abortion history and physical abuse, and many causal pathways may be simultaneously operative. Regardless of the specific mechanisms at play, maternal history of one induced abortion does appear to be a marker for elevated risk of physical abuse, and this information is potentially useful to child maltreatment prevention and intervention efforts.

The exploratory analyses undertaken to examine the relative risk associated with multiple abortions compared to no prior abortions surprisingly revealed no increased risk connected with repeated abortions. Women who have more than one abortion may be more comfortable with the procedure and they may therefore be less likely to experience negative psychological effects from the abortion than women who have experienced only one abortion. This interpretation may explain the lack of association between repeated abortion and increased risk for child maltreatment. On the other hand, only 59 women in this study had experienced more than one abortion, and the nature of the relationships between repeated abortions and both physical abuse and neglect were in the expected direction; therefore, with a larger sample significance might have been obtained.

When no distinction was made regarding the form of perinatal loss, a significant association was observed between one loss and an increased risk for physical abuse, but no effect was revealed for neglect. Similar findings were revealed for multiple losses, when women had experienced at least one induced abortion and one miscarriage or stillbirth. Based on the rather distinct patterns of results identified for involuntary versus voluntary perinatal losses reviewed above, future research should continue to separate these forms of loss when examining possible links with parenting behavior.

However, there is reason to examine the effects of distinct combinations of involuntary and voluntary perinatal losses, because there is reason to believe that a history of induced abortion might exacerbate negative emotions associated with miscarriage [30]. Specifically, Klock and colleagues found that those with a history of induced abortion had higher levels of anxiety, lower marital adjustment, and different attributions regarding their involuntary pregnancy losses than women without a history of induced abortion.

The strengths of this study are many: the use of a carefully conducted sampling methodology, which

included confirmed cases of child maltreatment, an extended time frame, and a racially diverse sample. Nevertheless, the data were gathered in only one geographical locale and the study adopted a retrospective methodology that relied primarily on self-report assessments, which could compromise the integrity of the data gathered as well as the generalizability of the findings. A final limitation pertains to how the abuse and neglect cases were selected. The majority of the mothers in the abuse group were perpetrators of physical abuse; however, women who allowed their children to be abused were also included, and there was no way to distinguish between the two segments. These two segments may differ in ways that are critically relevant to mothers' feelings about parenting. For example, women who allow others to abuse their child may feel powerless to do anything about the abuse, possibly due to a sense of learned helplessness originating from a personal history of having been abused, but their unwillingness to engage in abusive behavior themselves suggests more self-restraint. In addition, some of the cases in the abuse group also included a neglect history; whereas the neglect group did not include any cases with evidence of abuse. Finally, some of the women who were in the unidentified group may have been guilty of child maltreatment, but they simply had not been reported to child protection services. With "cleaner" maltreatment groups, the effects observed may have been stronger and more in line with the hypotheses.

Future work using a prospective methodology, more distinct maltreatment groups, and a nationally representative sample, which incorporates a multimethod data collection effort, seem warranted. In the event that such a large-scale effort yields robust findings consistent with those described herein, more effort should be directed toward helping women restore their emotional health following an abortion. Investment in such programs is likely to improve the quality of their lives and increase the likelihood that their future families will be violence free.

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