

Physical Abuse in Pregnancy

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Screening interviews to determine the extent of physical abuse were conducted for 742 women seen in the University of Virginia obstetric clinics. Eighty-one women (10.9%) reported that they had experienced abuse at some point in the past. These women were more likely to be divorced or separated, indigent, and less educated than were the non-abused control patients. They were more likely to have had emotional problems, and 20% had attempted suicide. Twenty-nine of the 81 women reported abuse during the current pregnancy, with 21% reporting increased abuse and 36% noting decreased abuse during pregnancy. Women living with an abusive partner did not experience a greater frequency of adverse pregnancy outcomes than did those who had left abusive relationships. An awareness of the extent of the problem and direct questioning will result in an increased identification of women who are at risk for physical abuse during pregnancy. (*Obstet Gynecol* 66:185, 1985)

Family violence is an unpleasant subject and one that many physicians do not recognize or acknowledge. Because physical violence is disproportionately directed against women,¹ it is important for obstetricians to be aware of the extent of the problem, which has been termed wife beating or battering.² Although an assessment of the extent of the problem depends on how it is defined, severe physical battering of women by their male partners is a real nation- and world-wide problem.

It is difficult to obtain an accurate estimate of the frequency of wife abuse because it is under-recognized, under-reported, and occurs within the privacy of the home. Perhaps the best estimates come from a nationally representative sample of over 2000 families surveyed by Straus et al.^{3,4} This study quantified behavior using a conflict tactic scale describing a spectrum of violent acts. Twenty-eight percent of the couples reported that they had engaged in at least one violent act during the course of their marriage. In this sample, 3.8% of the couples reported violent acts that

were more severe than pushing, slapping, grabbing, or throwing things, which were defined as wife beating.

Data from the National Crime Survey reveal an average yearly rate of assault by spouse or ex-spouse of 2.7 per 1000 women during the period from 1973 to 1981.⁵ These data estimate the amount of family violence considered criminal that was revealed to survey interviewers. Assault by relatives is the most under-reported of all crimes covered by the survey.

Other studies have assessed the extent to which emergency room visits resulted from injuries inflicted by a partner. A direct inquiry of women in the Yale emergency room during one month revealed that 3.8% of the patients seen by the surgery service admitted to having been injured by their partners.⁶ In another study, chart reviews of emergency room visits revealed that abuse was recorded in 2.8%, but the reviewers believed abuse to have been probable or suggestive in an additional 15% of the patients.⁷

An association between pregnancy and abuse has been suggested in the psychiatry and sociology literature. Battered women seen in the emergency room were found to be three times more likely than nonbattered women to be pregnant when injured.⁷ Gelles,⁸ in an interview with 80 families (40 selected from police and social agency files and 40 neighbors selected as control subjects), noted that of the families reporting violence, 23% reported violence during pregnancy. Hilberman⁹ interviewed 120 women in a rural health clinic who had been referred for psychiatric evaluation and noted that 50% were victims of marital violence and that most of these women reported changes in the abuse during pregnancy. Roy¹⁰ included pregnancy in a list of nine causes of domestic violence. Bowker¹¹ interviewed 136 women who had beaten wife beating, that is, had successfully dealt with the problems of physical abuse by a partner. She found that 56% had been beaten at least once while pregnant. Walker¹² detailed common factors for 120 battered women whom she saw for therapy and stated that most of the women said that violence became more acute during pregnancy and their child's infancy.

The current study was undertaken to systematically

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ascertain the extent of violence during pregnancy in a clinic obstetric population and to identify individual abused women in an effort to provide practical advice and counseling.

Materials and Methods

Psychosocial risk factors were assessed during prenatal screening for women attending the obstetrics clinic of the University of Virginia Hospital during May 1982 through April 1983. Nine hundred eighteen women were seen for prenatal care during this year. Seven hundred forty-two (80.8%) were seen by one obstetrics educator, a registered nurse, for screening. The remaining 19% were not screened because of scheduling and logistic factors. Qualifications for clinic attendance are based on income related to family size. The geographic area served included the small city of Charlottesville and the surrounding rural counties. At this initial interview, sociodemographic data were obtained. Habits detrimental to the pregnancy were noted as well as past medical and psychiatric problems. The patient's reaction to her pregnancy was characterized and any problems related to the pregnancy were ascertained.

The direct question, "Has anyone at home hit or tried to hurt you?" was incorporated with questions about problems related to pregnancy. Women who responded positively were questioned further to determine whether the abuse had occurred in the past or during the current pregnancy, who had been the abuser(s), the sites of abuse, whether or not there had been any change in frequency of abuse with pregnancy, whether or not the woman had been to an emergency room with an injury inflicted by her partner, and whether or not therapy had been considered. Practical advice was offered in terms of the availability of police and legal services, welfare services, emergency shelter, and therapy. Each woman who was identified as having experienced abuse was referred to a social worker for further counseling. The medical chart of each abused woman was reviewed after her delivery.

The study group of women who responded that they had been assaulted at some time was compared with a control group consisting of one-third of the women seen for prenatal care during the same year who denied previous assault. Sociodemographic parameters were compared for the study and control groups. All *t* tests were two-tailed.

Results

The extent of physical abuse in the obstetric population is summarized in Table 1. Eighty-one women indicated

Table 1. Physical Abuse and Pregnancy

Parameter	No.	%
Women screened	742	100
Ever abused	81	10.9
Abuse during current pregnancy	29	3.9
Past abuse, still living with abusive individual	15	2.0
Past abuse, no longer with partner	37	5.0

that someone at home had hit or tried to hurt them. Twenty-nine (3.9%) of those screened reported that the abuse was occurring during the current pregnancy. Another 15 women reported that although the abuse had not occurred since the beginning of pregnancy, they were still living with or in a relationship with someone who had hit them in the past. Chart reviews conducted after the delivery of each of the 81 abused women revealed that episodes of physical abuse occurred later in the pregnancy for four of these 15 women. The remaining 37 women, 5% of those screened, reported past abuse and stated that they were no longer in that relationship.

Demographic data describing the study and control groups are summarized in Table 2. The abused women were significantly older and of greater parity than were the control subjects. They did not differ significantly by race. Their educational levels were significantly lower and they were more likely to be at the lower end of the financial scale, that is, receiving Medicaid assistance, or qualifying for free care. The gestational ages at presentation for prenatal care were not significantly different from control subjects. The abused women were more likely to be divorced or separated than were the control subjects.

Table 2. Comparison of Demographic Factors: Abused Women Versus Control Patients

Parameters	Abused (N = 81)	Controls (N = 247)	Significance (P)
Age*	24.6 ± 5.61	21.5 ± 4.56	<.001
Parity*	1.7 ± 1.8	0.7 ± 1.0	<.001
Education*	10.2 ± 1.8	10.7 ± 1.9	<.05
Race	27 (33%) B	111 (45%) B	NS
Financial status			
Medicaid	25 (31%)	48 (20%)	<.05
No charge	44 (54%)	116 (48%)	<.025
Gestational age			
13	35 (43%)	99 (40%)	NS
<14-26	31 (38%)	118 (49%)	
27-term	15 (19%)	27 (11%)	
Marital status			
Single	20 (25%)	133 (54%)	<.001
Married	21 (26%)	94 (38%)	
Divorced or separated	40 (49%)	20 (8%)	

* Mean ± standard deviation.

B = black women; NS = not significant.

Table 3. Psychiatric History and Substance Use: Abused Women Versus Control Patients

	Abused (N = 81)	Controls (N = 247)	Significance (P)
Psychiatric history			
Problems with nerves	35 (43%)	12 (5%)	<.001
Visit to doctor for nerves	33 (41%)	7 (3%)	<.001
Medication prescribed for nerves	14 (17%)	3 (1%)	<.001
History of depression	11 (14%)	7 (3%)	<.001
Hospitalization for nerves	12 (15%)	3 (1%)	<.001
Suicide attempts	16 (20%)	7 (3%)	<.001
Substance use			
Tobacco	45 (55%)	89 (36%)	<.001
Alcohol	9 (11%)	11 (4%)	<.05
Drugs	6 (7%)	7 (3%)	<.1

The psychiatric histories of the abused women and control subjects are noted in Table 3. Women who had been abused were significantly more likely than control subjects to have experienced emotional problems, seen a physician for these problems, been treated with psychotropic drugs, been severely depressed, or been hospitalized for psychiatric illness. Twenty percent of the women who had been abused had attempted suicide. The substance use by both groups also is noted in Table 3. The group of women who admitted physical abuse were significantly more likely to use tobacco and alcohol.

The reactions to pregnancy of women who were living with an abusive individual are compared with those of women noting only past abuse (Table 4). For this latter group of women, the father of the expected child was not abusive, and therefore, answers to questions about the current pregnancy were not expected to differ from those of the control group. A

Table 4. Statements About Pregnancy by Abused and Control Patients

	Current abusive relationship (N = 44)	Past abusive relationship (N = 37)	Controls (N = 247)	Significance (P)
Elective abortion considered	15 (34%)	8 (22%)	51 (21%)	<.1
Pregnancy planned	12 (27%)	10 (27%)	85 (35%)	NS
Pregnancy caused problems	11 (26%)	4 (11%)	23 (9%)	<.001
Happy with pregnancy	18 (41%)	27 (73%)	157 (64%)	NS

NS = not significant.

slightly greater number of women who were living with an abusive partner had considered an elective abortion, although this was not significantly different than the control subjects. A similarly small percentage of each group and of the control subjects noted that the pregnancy had been planned. A greater percentage of currently abused women than controls noted that the present pregnancy had caused problems, but the proportion was still low (26%). When asked their feelings about the pregnancy, fewer of the women in an abusive current relationship noted that they were happy than did control subjects.

Eight women responded to the screening question with information about abuse inflicted by a parent or parents, rather than a male partner. These were adolescents (ages 15 to 18) and young adults who were reporting recently inflicted child abuse rather than wife abuse. Eleven of 81 women admitting abuse reported abuse from more than one partner.

Forty-nine percent of the women screened reported that they had been to an emergency room with an injury inflicted by their partner. These injuries had included bruises, lacerations, broken bones, and head or dental injuries. The sites of reported injury almost universally included the face (99%), and 40% of the abused women reported multiple sites of injury, including face, arms, abdomen, breasts, and back.

Twenty-one percent of women experiencing current abuse reported an increase in abuse during pregnancy, 36% stated that the abuse had decreased, and 43% reported no change. When both current and past abusive relationships during pregnancy were considered, the percentages reporting change were similar: 24% had experienced increased abuse, 36% noted decreased abuse, and 40% reported no change in the frequency of abuse.

When questioned about counseling or therapy related to abuse, 20% of the women responded that they had seen a counselor, whereas only 8% of the partners had accepted counseling. Eleven percent reported that both members of the couple had received therapy, although the largest number (44%) stated that they had not seriously considered therapy. Thirty-nine percent of the total group reported that their partner was or had been unwilling to seek therapy.

The pregnancy outcomes for women currently living with an abusive partner are compared in Table 5 with those noting only past abuse. Follow-up information was available for 73 women, as eight women did not complete their prenatal care or deliver at the University of Virginia Hospital. No marked differences in outcome were demonstrated. Apgar scores at one and five minutes did not differ significantly between the two groups.

Table 5. Pregnancy Outcome

	Living with abusive partner	Past abuse only
Term delivery	36	30
Preterm delivery	0	2
Spontaneous abortion	2	0
Intrauterine demise	2	1
Total	40	33

Discussion

The present study revealed that a significant number (10.9%) of these obstetric patients had experienced physical abuse at some point in the past; for most of these women the abuse previously had been unrecognized by the medical profession. Nearly 4% of the women seen for prenatal care admitted at their first visit to having been assaulted during the current pregnancy.

Women noting current abuse are clearly at risk for future abuse. An additional 2% who were still living with a partner who had been abusive in the past also appear to be at risk. Because the screening took place at the first prenatal visit, it was anticipated that some women who noted that abuse had not occurred thus far during the pregnancy would experience subsequent abuse during pregnancy. This was confirmed in chart reviews specifically noting later abuse in four of 15 women, and is consistent with what Walker¹² describes as a cycle theory of violence in which each couple repeatedly passes through three phases: 1) a tension building state, 2) the acute battering incident, and 3) a period of kindness and contrition with loving behavior. During this last phase, the woman is frequently hopeful that her husband will change. Thus an answer at the first prenatal visit that abuse is no longer a problem may represent only one phase of this cycle.

Five percent of the women identified by the screening question were no longer in an abusive relationship. These women had made sincere efforts to change their lives after putting up with varying durations of episodic or recurrent violence. For some, this decision had required a major effort with mobilization of law enforcement agencies to press charges against the partner, legal services to obtain a divorce or child custody, and/or welfare agencies to assist with support payments.

Unfortunately, some of these women seemed to choose other abusers as subsequent partners. Eleven of the 81 women (14%) had been in more than one relationship where physical violence was a frequent method of dealing with conflict. An explanation for this fact is certainly complex and probably relates to learned patterns of behavior, but it occurs often

enough in the present sample of patients to indicate that a history of a physically abusive relationship suggests the need for continued awareness of the possibility for future abuse.

One unexpected finding was the number of women identified by the screening question who were adolescents and who reported abuse not by their male partner, but by their mother or father. One tends to think of a pregnant woman as an adult, with a primary relationship with the father of the pregnancy, but many pregnant adolescents are living at home, and are still themselves victims of child abuse.

Although reports correlating abuse and pregnancy have emphasized the potential for increased abuse during pregnancy,^{3,7-9,12,13} a larger percentage of the patients reported that abuse had decreased rather than increased with pregnancy. Statements such as "I know he won't hit me when I'm pregnant," or "I think my pregnancy is the reason he doesn't hit me," were voiced by a number of women. It was obvious that for these women, a cessation of abuse could be a powerful motivation for achieving a pregnancy. Most of the patients (60%) did note a change in abuse during pregnancy. The percentages of women noting either an increase or a decrease in frequency of abuse were notably consistent whether women were reporting change since the beginning of the current pregnancy or the overall direction of change in past relationships that had included abuse during pregnancy.

For a significant number of these patients, pregnancy did result in increased abuse. The confirmation of a pregnancy was felt to precipitate violence for a few of the patients. Chart reviews revealed emergency room or clinic visits for violence very early in pregnancy. Chart notes by nurses or social workers reported ambivalence or a discordance between the husband and wife regarding their feelings about the pregnancy, which seemed to lead to an increase in marital conflict for some couples, and the potential for physical force to be used in an attempt to resolve conflict.

Four patients reported past beatings that they felt had led to pregnancy losses. One woman had been pushed through a window during pregnancy, and reported that she then delivered a stillborn fetus. Another reported the onset of premature labor immediately after she had been kicked in the stomach. Physical abuse in pregnancy has been termed prenatal child abuse. In a letter to the *LANCET* reporting a "battered fetus," Morey et al¹⁴ called for an increased suspicion of trauma as a cause of stillbirths.

The association with adverse pregnancy outcome has been suggested frequently in the psychiatric literature with statements to the effect that blows to the abdomen often lead to abortions and premature births.¹³ Seven percent of the women interviewed by

Bowker¹¹ reported that they had suffered miscarriages as a result of beating. This suggestion has been based on anecdotal reports rather than systematic study, and may be related to the tendency for lay people and physicians alike to search for a causative event temporally related to pregnancy loss. Abdominal blunt trauma is felt to be an infrequent cause of placental abruption or fetal injury,¹⁵ although the author's patients' reports of past losses also would seem to suggest that this may occur more frequently than is recognized.

For these patients, no differences in pregnancy outcome were noted between the group of women currently living with an abusive partner and those no longer living with abuse, although the number of women experiencing an adverse outcome—spontaneous abortion, stillbirth, or premature delivery—was small. However, some individual histories were remarkable and of clinical significance. One woman spontaneously aborted at 16 weeks' gestation, one week after experiencing blows to the abdomen and a gunshot wound to her arm. Another woman was hospitalized on the psychiatric unit after a suicide attempt during her fifth month of pregnancy.

Indirect indicators of psychosocial stress or general questions about problems related to pregnancy did not help identify the women at risk for abuse. Women who had been abused did note that the pregnancy had caused problems more frequently than did the control group, but only 26% would have been identified by this question alone. Women who were living with an abusive partner were less likely than control subjects to report that they were happy to be pregnant, although there was sufficient overlap between the groups to preclude a value in screening identification. The control group was as unlikely as the study group to state that the pregnancy had been planned. These results lead to the conclusion that direct questions about abuse should be incorporated with other screening questions about how the woman and her partner feel about the pregnancy and whether or not there are any problems between them.

Some of the factors characterizing the women who admitted to a history of abuse could be used to help identify those women most at risk. More abused women than control patients were in the lowest financial category or receiving Medicaid assistance. This was true for the current author's sample as has been noted in the National Crime Survey Data⁵ and other studies,⁸ and emphasizes that couples with severe financial problems are more stressed. It is, however, clear that wife abuse does occur in all socioeconomic groups.^{4,8,11,12}

As expected in a group that included women who noted past abuse and who were no longer in an

abusive relationship, the abused women were more likely to be divorced or separated than were the control subjects. This also is consistent with reports revealing a significant incidence of violent behavior among couples seeking divorce.¹⁶

One of the more impressive differences between the abused women and the control subjects is the fact that 43% of abused women noted emotional problems, as opposed to 5% of control subjects. These findings suggest that at least some patients who describe themselves as nervous may be expressing the internal conflicts that result from life with an abusive partner. The fact that 20% of the abused women in this study had attempted suicide suggests the degree of psychiatric morbidity that may result from wife abuse. These women deserve evaluation and, potentially, therapy to deal with their situations. Further questioning to elicit a history of physical abuse is justified for women with a psychiatric history or symptoms. Forty-four percent of these patients had not seriously considered therapy for issues related to abuse, although 41% had seen a physician for emotional problems. In Hilberman's⁹ study, 50% of 120 women referred from the general medical service for psychiatric evaluation had been abused—a fact known to the referring physician in only four of 60 patients.

Chronic psychosomatic symptoms may lead a battered woman to her primary physician, who may be her gynecologist. Headaches, symptoms of hyperventilation, dizziness, fatigue, weakness, gastrointestinal symptoms, depression, anxiety, low back pain, musculoskeletal chest pain, or pelvic pain were noted in chart reviews to occur frequently for many of these patients, as has been noted in other studies of wife abuse.⁹ A woman with a history of these complaints, or with multiple vague symptoms, should be questioned about the possibility of physical abuse.

Pregnancy may lead to increased stress and an increase in violent behavior for some families. An awareness of the extent of wife battering and its association with pregnancy will lead to the identification of individual women who have been abused in the past and who may be abused during pregnancy, with resultant jeopardy for both the mother and her unborn child. Options for intervention and community referral including emergency shelters, police, legal resources, social services, and counseling should be offered. Although the solutions to the problems of abused women are complex, the identification of abuse by a physician can be a first step.

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