Published in final edited form as:
J Subst Abuse Treat. 2006 January ; 30(1): 31–38. doi:10.1016/j.jsat.2005.09.001.

Exposure to violence among substance-dependent pregnant women and their children

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Abstract

This study examined the prevalence of exposure to violence among drug-dependent pregnant women attending a multidisciplinary perinatal substance abuse treatment program. Participants (N = 715) completed the Violence Exposure Questionnaire within 7 days after their admission to the program. Their rates of lifetime abuse ranged from 72.7% for physical abuse to 71.3% for emotional abuse to 44.5% for sexual abuse. Their rates of abuse remained high during their current pregnancy, ranging from 40.9% for emotional abuse to 20.0% for physical abuse to 7.1% for sexual abuse. Nearly one third of the women reported having physical fights with their current partner (lifetime), and 25% of these women reported that children were present during those physical fights. A total of 30% of the women perceived a need for counseling regarding exposure to violence for themselves and 15% perceived a need for counseling for their children. Study findings confirm previous reports of high rates of abuse and violence exposure among substance-abusing pregnant women and their strong need for counseling for psychosocial sequelae. This study affirmed the value of routine screening for violence exposure in this at-risk population as well as the need to train therapists in specific strategies for helping such women address this complex array of problems.

Keywords

Violence; Sexual/physical/emotional abuse; Pregnancy; Women; Drug dependence; Children

1. Introduction

Violence toward women is a major public concern with ramifications for both the public health and criminal justice systems. Population-based surveys among women show that lifetime prevalence rates for physical assault, sexual abuse, and stalking by a current or former partner

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range from 25% and 41% and 1.8%, respectively, to 17% for the past 12 months (Richardson et al., 2002; Tjaden & Thoennes, 2000; Wilt & Olson, 1996).

The relationship between violence exposure and substance abuse is well established (Augenbraun, Wilson, & Allister, 2001; El-Bassel et al., 2004; Kalichman, Williams, Cherry, Belcher, & Nachimson, 1998). Drug-dependent women report rates of intimate partner violence (IPV) that are two to three times higher than the rates reported in national surveys of women, with lifetime prevalence rates of 60%; 47% report current domestic violence at substance abuse treatment intake (Bennett & Lawson, 1994; Easton, Swan, & Sinha, 2000; Swan, Farber, & Campbell, 2000). Similarly, women exposed to violence are more likely to have problems with alcohol/drugs (Miller, 1998). However, not much is known about the relationships between alcohol/chemical dependence problems and exposure to violence during pregnancy.

In a sample of women attending routine prenatal care, those reporting physical or sexual abuse during pregnancy were more likely to use alcohol and drugs than women reporting no exposure to violence (Amaro, Fried, Cobral, & Zuckerman, 1990; Martin, English, Andersen, Cilenti, & Kupper, 1996). Another study found that hospitalizations caused by violence were more common among pregnant women using cocaine as compared with non-drug-exposed pregnant women (Bauer et al., 2002).

Violence during pregnancy is a complex problem because of its dual risks to both a mother and her unborn child (Coker, Sanderson, & Dong, 2004; McFarlane, Parker, & Soeken, 1996a,b). Studies on violence during pregnancy in the general population show prevalence rates ranging from 0.9% to 20.1%, although most studies report prevalence rates between 3% and 14% (GAO, 2000; Gazmararian, 2000; Gazmararian et al., 1996). Although a causal relationship between exposure to violence during pregnancy and adverse perinatal outcomes has not been clearly demonstrated, pregnant women who experience abuse are more likely than are non-abused women to have conditions that place their fetuses at risk. These conditions include sexually transmitted diseases, including HIV-1 infection, urinary tract infections, low birth weight, smoking, psychiatric problems, and alcohol/drug use (King, 2002; McFarlane et al., 1996a, 1996b; Murphy, Schei, Myhr, & Du Mont, 2001; Tuten, Jones, Tran, & Svikis, 2004). In addition, pregnant women experiencing violence are at a higher risk of becoming victims of homicide than are pregnant women not experiencing violence (Campbell et al., 2003; McFarlane, Parker, Soeken, & Bullock, 2002).

It is clear that substance-abusing pregnant women who experience violence are at a significant risk of developing a variety of negative sequelae. However, not much is known about this population. Thus, the purpose of this study was to describe the prevalence of exposure to violence among pregnant women receiving substance abuse treatment at an inner-city treatment facility. Their sociodemographic and clinical characteristics as well as their service needs were evaluated. The results of this study may provide information essential for the creation of clinically effective identification, evaluation, and treatment programs for pregnant women experiencing violence to providers and policymakers.

2. Materials and methods

2.1. Definition of terms

Most researchers refer to violence against women as “domestic violence” or “intimate violence exposure” (“a pattern of coercive control of one intimate partner against another that includes physical or sexual violence, threats of physical or sexual violence, and emotional abuse in the context of physical and sexual violence” [Saltzman, Fanslow, McMahon, & Shelle, 1999]). In general, domestic violence and intimate violence exposure describe physical and/or sexual

violence from the male to the female partner within a relationship. In the present study, we defined violence or abuse against women as physical, sexual, and/or emotional abuse by either an intimate partner or another individual.

Several factors contributed to this decision: First, most studies have found that violence against women is most often perpetrated by current or former sexual partners. However, substance-abusing women are frequently exposed to violence by perpetrators other than their partner. Using the IPV or traditional domestic violence concept exclusively would omit abuse perpetrated by others (e.g., relatives and strangers).

Second, violence against women involves a continuum of behaviors including intense criticisms and demeaning remarks, restraint of normal activities and freedoms, jealous control, denial of access to other persons or resources, threats and intimidation, sexual coercion and assault, rape, physical attacks, and even homicide (Pagelow, 1984; Walker, 1979). Although all these forms of violence, including emotional abuse, may have a significant impact on women, most studies have focused on physical and/or sexual violence. However, recent research suggest that the impact of emotional abuse may be more damaging than the effects of physical abuse for some women (Kilpatrick, 2004; Mega, Mega, Mega, & Harris, 2000; Street & Arias, 2001; Tjaden, 2004).

2.2. Participants

Study participants were 715 pregnant substance-abusing women admitted between September 2000 and July 2003 to a comprehensive treatment facility in Baltimore for their first treatment episode. The facility offers residential as well as intensive outpatient drug treatment services, with onsite obstetric/gynecologic, family planning, and pediatric/ childcare services. The program has been described elsewhere (Jansson, Svikis, Lee, Paluzzi, Rutigliano, & Hackerman, 1999).

All women began treatment with a 7-day residential component. During this time, women participated in group counseling, including a single 90-minute psychoeducational group session focusing specifically on the intersection of violence and substance abuse. Topics covered in this group include definitions of abuse, types of abuse, the psychological and social effects of abuse on the pregnant women and their children, the relationship between substance abuse and exposure to abuse/violence, and the importance of addressing problems related to abuse/violence as an essential component of the recovery process. Immediately after the group session, women were asked to complete the Violence Exposure Questionnaire (VEQ), a screening tool developed to evaluate current and lifetime exposure to violence. Referrals to intensive assessment and comprehensive interventions were offered to women reporting a current history of abuse and feeling the need for assistance (for themselves and/or their children) regarding issues related to exposure to such abuse.

2.3. Instrument

The VEQ is a 15-item self-report questionnaire developed by study investigators and is based on the well-known Abuse Assessment Screen (AAS; McFarlane, Parker, Soeken, & Bullock, 1992; Soeken, McFarlane, Parker, & Lominack, 1998). The VEQ expanded the AAS to assess seven domains (physical abuse, sexual abuse, emotional abuse, perceived safety of patient, presence of weapons in the home, community violence exposure [self and child(ren)], and perceived need for help regarding issues related to violence exposure).

To determine their exposure to physical abuse, we asked the patients if they had been hit, slapped, kicked, or physically hurt by someone. To determine their exposure to sexual abuse, we asked them if anyone had forced them to have sex. To determine their exposure to emotional

abuse, we asked them if they felt that they had been emotionally abused in ways that include insulting, ridiculing, ignoring, and/or criticizing. For each of the types of abuse, we asked the patients about their lifetime history and history of abuse during their current pregnancy. In addition, the relationship of a victim to her perpetrator(s)—father, mother, ex-partner, current partner, or others—was assessed for each report of past or current abuse.

In an attempt to determine if the women also engaged (reciprocally) in violent behaviors, we asked the following questions: “Have you had pushing, shoving or physical fights with your current partner?“ and “Have you had yelling and /or screaming fights with your partner?” The women were also questioned regarding the presence of their children during these violent episodes: “If yes, was this in front of the child(ren)?”

To assess the patients’ perception of their safety during their current pregnancy, we asked them if they were afraid of their current partner, if there was a partner from a previous relationship who was making them feel unsafe, and if they feel unsafe at home and why.

The VEQ also screens for the availability of weapons at home (“Is there a weapon in the house?”) and explores the kind of weapon available (gun, knife, or others). It is known that easy access to a gun combined with a violent relationship increases the potential for serious harm or death (Walton-Moss & Campbell, 2002). Particularly, firearms are involved in a high percentage of homicides in the home (Bailey et al., 1997; Dahlberg, Ikeda, & Kresnow, 2004). The VEQ contains two questions regarding exposure to violence in the community: First, “Have your children seen frightening things in your neighborhood? ” Follow-up subquestions to this included “If *yes*, what kind (fights, knifings, shootings, and/or kidnappings)?” and “How did it affect your child?” Second, “Have you been involved in any street fights?”; the follow-up subquestion being, “If *yes*, were your children present?”

Finally, the VEQ evaluates whether mothers perceive a need for help (in the form of counseling, family therapy, etc.) for themselves for issues related to violence exposure. In addition, it explores whether mothers perceive their children as having behavioral, emotional, and/or academic problems related to their exposure to violence and their perception of their children’s need for help regarding these problems.

2.4. Data analysis

Data analyses were carried out using a SAS computer software (Version 8.01, SAS Institute, Cary, NC). For categorical variables, rates and frequency distributions were calculated and proportions were compared using χ^2 analysis. For continuous variables, mean values and standard errors were calculated and comparisons were made using *t* tests. A two-tailed α level was set at .05.

3. Results

Seven hundred fifteen pregnant women completed the VEQ as part of a standard intake treatment assessment protocol at the program. The women were, in general, in the second trimester of their pregnancy (*M* = 19.2 weeks, *SD* = 9.04 weeks). Demographically, the women were predominantly African American (67%), had a mean age of 30.14 years (*SD* = 5.63 years; range 18–46 years), and had 1.6 dependent children (*SD* = 2.02 dependent children). The women were predominantly single (79%) or divorced (3.1%)/separated (8%). Fifty-nine percent of the women reported an independent living arrangement.

The lifetime prevalence rate of any type of violence (ever physically, sexually, or emotionally abused) ranged from 72.7% for physical abuse to 71.3% for emotional abuse to 44.5% for sexual abuse. One third (35.8%) of the women reported a lifetime history of all three types of

abuse (physical, sexual, and emotional), and 84.9% reported experiencing at least one type of abuse during their lifetime.

The prevalence rate of exposure to any type of violence during the current pregnancy was 45.3%. Rates of specific types of violence during the current pregnancy ranged from 40.9% for emotional abuse to 20.0% for physical abuse to 7.1% for sexual abuse. Four percent of the women reported all three types of abuse during their pregnancy.

Sexual partners were the primary perpetrators of lifetime physical (83.6%) and emotional (80.5%) abuse. Parents (especially mothers) were also frequent perpetrators of physical and emotional abuse. Sexual abuse was more frequently perpetrated by abusers other than the partners (e.g., distant relatives and/or strangers; Table 1).

Approximately one third (32.7%) of the sample reported having a history of lifetime physical fights with their current partner. Twenty-five percent of the women who reported episodes of physical aggression with their partner stated that these fights occurred in front of their children. More than half (56.3%) of the women had a lifetime history of yelling or screaming fights with their partner; within this sub-sample, one fourth (25.9%) indicated that the verbal conflicts occurred in front of children.

Despite their current marital status, living arrangements, and/or instability of their intimate relationships, only 6% of the women reported fearing their current partner, 7.9% reported that they were currently afraid of their ex-partner, and 10.4% reported that they were currently feeling unsafe at home. Twenty-six percent of the women reported having a weapon available at home (usually a knife or gun) that was identified as a potential weapon.

Reports of lifetime violence in the community were also high. Of all the women in the sample, 40% reported having been involved in fights in the streets and 28% reported that their children had been exposed to frightening things in their neighborhood (e.g., fights, knifings, shootings, and kidnappings); half of these exposures were categorized as shooting episodes (Table 2).

Finally, almost one third (30%) of the women reporting any type of violence perceived a need for counseling for themselves regarding their history of abuse. Fifteen percent of all women perceived a need for help for their children owing to symptoms (behavioral, emotional, and/or school-related problems) that they considered related to either witnessing or suffering a violence exposure. Women identified emotional effects on the children (i.e., fear, sadness, confusion) as the most common problems (69%), followed by behavioral (i.e., aggressive) effects (54%) and school problems (20%). Women frequently attributed effects in more than one area to the exposure to violence.

4. Discussion

This study documented high rates of lifetime and current exposure to violence among a population of substance-dependent pregnant women entering substance abuse treatment, as assessed by the VEQ. Physical, emotional, and sexual abuse histories were frequently reported with high rates of co-occurrence. Usually, the perpetrator was the partner or someone closely related to the victim (i.e., a family member) and, unfortunately, children frequently witnessed such violence.

The prevalence rate of physical violence during pregnancy in this sample (20.3%) was two to five times higher than prevalence rates previously reported in survey studies on pregnant women in the general population (3%–14%; GAO, 2000; Gazmararian, 2000). High rates of physical abuse during pregnancy similar to those found in this study have been reported infrequently elsewhere (O'Campo, Gielen, Faden, & Kass, 1994; Parker, McFarlane, Soeken,

Torres, & Campbell, 1993) when researchers used a detailed in-person interview (i.e., the AAS and Conflict Tactic Scale) and screened subjects several times during all three trimesters of their pregnancy (Gazmararian et al., 1996; Jasinski, 2004).

Although the rates of violence that we found are high, we nonetheless believe that they represent underestimates of the true scope of the problem. We have clinically observed that women frequently deny exposure to violence upon program admission, only to disclose abuse subsequently during their treatment. It is also possible that substance-dependent women may accept some abusive aspects of their life as normal or may experience psychosocial pressure to deny a history of abuse. In addition, the high rates of physical and yelling/screaming fights reported suggest that violent episodes between partners are frequent; therefore, it is likely that violent behavior stems from both partners. Some of the women involved in these episodes may not perceive these situations as an abusive event perpetrated by their partner. Therefore, it may not be surprising to find higher rates of abuse later on in treatment when substance-abusing pregnant women become aware of their abusive relationships and feel more comfortable disclosing to therapists the reality of their everyday lives.

The finding that 7.1% of the women reported sexual abuse during pregnancy is of particular concern. Sexual abuse has been associated with multiple health risks for mothers and infants, including sexually transmitted diseases (e.g., AIDS), urinary tract infection, complications during labor and delivery, and depression (Gilbert, El-Bassel, Schilling, Wada, & Bennet, 2000; King, Britt, McFarlane, & Hawkins, 2000; Jasinski, 2004). In addition, substance-abusing pregnant women who report both sexual and physical abuse during pregnancy present with high levels of psychological distress (Velez et al., 2003).

Treatment programs for chemically dependent pregnant women often fail to recognize sexual or physical abuse, which may result in premature treatment dropout, relapse to substance use, and poor perinatal outcomes (Berenson, San Miguel, & Wilkinson, 1992; Hien & Levin, 1994). Routine screening for sexual abuse in substance-abusing pregnant women is imperative so that appropriate services and safety plans can be established for the victims, their existing children, and their newborns. The VEQ may serve as a screening tool given that it was very well accepted by this study population and facilitated development of individualized intervention plans.

Intervention strategies for pregnant drug-dependent women experiencing violence differ depending on the relationship of a perpetrator to a victim. The most frequent perpetrators found among this sample of women experiencing physical and emotional abuse were partners (current and/or ex), which is consistent with previously published reports (Martin et al., 1999; Tjaden & Thoennes, 2000). However, it is notable that, in this sample, many perpetrators of violence against women during their current pregnancy were reported to be persons other than their current or ex-partner (i.e., fathers, mothers, and/or others). In the case of sexual abuse during current pregnancy, more than half (56.1%) of those women sexually abused reported that it had been done by a person other than their current partner (Table 1).

This has negative implications for women in their ability to access shelters for women experiencing violence. Most of these types of shelters stipulate that the perpetrator of physical or sexual abuse must be a victim's current and cohabiting partner. Also, even serious emotional abuse by a partner or another person is rarely a criterion for acceptance into a shelter or other domestic violence services. Many of the women in this sample stated that their emotional abuse was more disturbing than their physical abuse.

Interestingly, a relatively low percentage of women in this sample reported feeling unsafe at home (10.4%). Only 6% of the women reported fearing their current partner, and 7. 9% were afraid of their ex-partner despite most reporting violence in the hands of their intimate partner.

This may be caused by the frequently unstable domiciliary arrangements of this population. Feeling unsafe at home may imply a literal interpretation that may not apply to a woman who either is homeless or has transient housing accommodations. Substance abuse providers must be prepared to assess each woman's ongoing degree of risk in her near past, current, and potential future living environments, even if these arrangements are temporary and when needed to offer assistance in developing and facilitating a safety plan.

A total of 26% of the women reported having a weapon available at home, 39% of whom reported having guns. Studies have found that instead of conferring protection, keeping a gun in the home can be used against family members, especially by male intimates against women (Sorenson & Wiebe, 2004), and has been associated with increased risk for both suicide and homicide in women (Paulozzi, Saltzman, Thompson, & Holmgreen, 2001). Bailey et al. (1997) found that use of illicit drugs, domestic violence, and readily available firearms place women at a particularly high risk for homicide in the hands of a spouse, an intimate acquaintance, or a close relative. The high number (74%) of women who reported having a knife as a weapon is consonant with the report that men are more likely than women to be killed by knives in IPV situations (Paulozzi et al., 2001).

Children are frequently collateral victims of their mother's violence exposure. The women in this sample reported that their children were frequently exposed to and/or witnessed different types of violence at home. Research have found that children who experience or witness violence are at risk of developing emotional, behavioral, social, academic, and developmental problems (Mahony & Campbell, 1998; McFarlane, Groff, O'Brien, & Watson, 2003; Osofsky, 1995). They are also at increased risk of developing alcohol and drug problems in later life as well as becoming either batterers or victims in adulthood (Anda et al., 2002; Dube, Anda, Felitti, Edwards, & Williamson, 2002).

In addition to the violence experienced at home, women and their children from this sample reported experiencing significant rates of community violence. Exposure to violence may have a significant negative impact on developmental and adaptive functioning in children. Several studies suggest that long-term exposure to community violence may have a profound negative impact on children's cognitive, social, psychological, and moral development (Fry-Bowers, 1997; Perry & Azad, 1999). In addition, community violence exposure has been associated with aggressive behaviors in adolescents (Song, Singer, & Anglin, 1998). Although this study was designed to characterize violence exposure among pregnant drug-dependent women, the potential effects of exposure to violence among their children should not be underestimated. Indeed, several of the study women ascribed multiple difficulties in their children's lives to violence exposure. Clearly, such children require further investigation.

Studies indicate that the most important resource protecting children from the negative effects of exposure to violence is a strong relationship with a competent, caring, stable adult, most often a parent. However, when parents are themselves victims of violence, they may have difficulty fulfilling this role (Graham-Berman & Levendosky, 1998; Levendosky & Graham-Berman, 2000). It is noteworthy here that only 15% of all the women experiencing violence perceived a need for assistance for their children whereas more than 30% of these women reported a need for self-assistance.

The present study data should be interpreted with caution because methodological limitations must be considered. First, this is a cross-sectional study and may only reflect the current situation of the patients and what they can recall, which may in turn be affected by memories of a traumatic event. Second, the data are based on self-report, which may or may not reflect the true situation of victimization. Third, the results are from a sample of substance-abusing pregnant women seeking drug treatment, which may be different from those from the general

population. In addition, this study reports findings based on a single screening for violence exposure during the first week of treatment as opposed to screening at a predetermined gestational age or repeated screening over time. There may be a cohort effect given that women of more advanced gestational age have had more chances of being exposed to violence than those who are just beginning their pregnancy or vice versa.

Some of the strengths of the study include the relatively large sample size, the fact that data were collected in a relatively short period, and the application of an instrument developed to assess the prevalence and characteristics of violence exposure among pregnant substance-abusing women, for which there is no precedent. Administering the questionnaire after a structured group session that defined abuse and terms used to describe different types of abuse seems both a potential limitation and a strength. Although the group session helped define the terms used in discussing abuse and helped build trust that allowed the women to respond affirmatively to some of the items, it may also have produced higher rates of item endorsement than would be seen without it.

In summary, substance-abusing pregnant women and their children reported high rates of exposure to all types of violence. This exposure has significant health consequences for the women, children, and fetuses involved. The data reported here support the importance of routine screening for lifetime and current exposure to violence among substance-abusing pregnant women. Providers must understand and teach the complex relationships among substance abuse, exposure to violence, and mental health. The process of recovery for each pregnant substance-abusing woman experiencing violence must incorporate treatment for IPV issues both for herself and for her children. Treatment facilities for substance-abusing pregnant women should be prepared to address exposure to violence among their clients. Further research should be conducted to design and evaluate treatment models for violence exposure as a component of substance abuse treatment and to understand the effects of physical, sexual, and emotional abuse during pregnancy on both substance-dependent mothers and their unborn children.

Acknowledgments

Research support was provided by the Human Resources and Services Administration, Rockville, MD (Grant No. H64MC0017-02).

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Table 1

Characteristics of violence exposure among women reporting violence (N = 715)

	Physical	**Sexual**	**Emotional**
Lifetime	***n* = 520**	***n* = 318**	***n* = 510**
Age at first exposure [years, *M* (*SD*)]	17.1 (7.8)	16.0 (7.4)	16.4 (8.54)
Perpetrator[a] (%)			
Partner	83.6	42.6	80.5
Mother	26.2	1.3	35.2
Father	15.2	9.4	22.5
Others	16.2	64.2	22.6
Pregnancy	*n* = 140	*n* = 50	*n* = 293
Perpetrator[a] (%)			
Partner	71.5	50.0	70.9
Others	32.8	56.1	55.9

[a]Perpetrator groups are not exclusive.

Table 2

Exposure to violence among substance-abusing pregnant women and their children (*N* = 715)

Episodes	Percentage
Lifetime physical fights with current partner (25.5% of those witnessed by children)	32.5
Lifetime yelling or screaming fights with current partner (25.9% of those witnessed by children)	56.3
Feeling unsafe at home	10.4
Feeling afraid of current partner	6.3
Feeling afraid of ex-partner	7.9
Weapon available at home (38.8% of which were guns)	26.4
Children exposed to violence in neighborhood (50% of which were shootings)	28.2
Mother involved in any street fight	40.2