Domestic Violence and Pregnancy in Rural West Virginia

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Abstract

Recently, domestic violence has been recognized as a health problem of crisis proportion. Pregnant women are at twice the risk of battery. Abuse during pregnancy affects one woman in six. The purpose of this pilot study was to determine the incidence of domestic violence in pregnant patients residing in a rural area of West Virginia, and to describe the demographic characteristics of those abused women. The medical records of 63 pregnant women at a rural health clinic were reviewed. Twelve of 63 pregnant women (19%) reported recent or past abuse; 12.7% reported physical abuse and 9.5% reported mental abuse. Four out of 63 subjects (6.3%) were treated for physical abuse during pregnancy. Significant relationships existed between STD history and abuse ($x2 = 8.672$, $df = 1$, $p = .0032$), tobacco use and abuse ($x2 = 9.079$, $df = 1$, $p = .0026$), and marital status and abuse ($x2 = 10.03$, $df = 3$, $p = .0183$) in pregnant women. Individual, provider and community strategies for assessment and intervention with abused women in pregnancy are presented.

Keywords: domestic violence, abuse, pregnancy, rural, community

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Every 12 seconds in this country, a woman is a victim of domestic battery. Battered women are defined as women who have suffered one or more episodes of battery from their male partner or ex-partner. Battery includes slapping, kicking, punching, shoving, torture, and sexual assault. Women who are physically abused also suffer psychological and emotional battery (Bohn, 1990). S ince there are no racial, ethnic or socioeconomic predictors of abuse, all women are at risk of being abused. An overwhelming 50% of all women will experience physical violence in an intimate relationship (Bohn, 1990). Women in rural areas may be at increased risk due to a lack of resources, social isolation and cultural traditions which inhibit reporting of domestic violence.

Physical assault during pregnancy also occurs at an alarming rate in the US. Pregnant women are at twice the risk of battery; abuse during pregnancy affects one woman in six (16.6%) and is an indicator for increased risk of tobacco, alcohol and illicit drug use. Abuse during pregnancy has also been correlated with poor pregnancy outcomes (McFarlane, Parker & Soeken, 1996a). Usually, violence escalates during pregnancy, and blows to the genitals, breast and abdomen are especially common (McFarlane, Parker & Soeken, 1996b). Again, rural women may be at increased risk. Health care providers working with rural women must carefully assess for domestic violence, and intervene in a culturally relevant manner.

Recently, staff at a rural health clinic became aware of a seemingly increased rate of reports of domestic violence in their pregnant population. This rural health care facility mainly provides care to low income, under insured and uninsured families. In considering action, the providers decided that the first step was to identify the incidence of domestic violence among the pregnant women cared for in the prenatal care program. Next, providers thought that valuable

information regarding the incidence of other associated risk factors associated with domestic violence should be collected. Finally, a plan of action which included careful patient assessment, referrals, provider education and community awareness was initiated. This article will outline the results of each of these steps.

Methods

The purpose of the initial step of the plan was to determine the incidence of domestic violence in pregnant patients residing in a rural area, and to describe the demographic characteristics of those abused women. The following research questions were used to guide collection of data:

1. What is the incidence of reported domestic violence in pregnant women in a rural health clinic?
2. Is there a difference in the sociodemographic characteristics of pregnant women who have been abused versus those women who were not abused?

After receiving approval from the Charleston Area Medical Center/West Virginia University Institutional Review Board, a retrospective chart review was completed. A standard pregnancy risk assessment system was used with all subjects and was available on each chart. Questions regarding abuse included whether the subject had experienced abuse, and whether the abuse was physical, mental, sexual or child abuse. During the initial prenatal interview and subsequent prenatal visits, the two question screening method as described by McFarlane and colleagues (1995) was used to assess for physical and sexual abuse. Accordingly, women were asked if within the last year they had been hit, slapped, kicked or otherwise physically hurt by the partner or a family member, or forced to have sexual activities. Also, risk factors, such as smoking and substance use (alcohol and illicit drugs) were measured. Other sociodemographic

characteristics measured included: ethnic background, age, marital status, work status, insurance type, and education of the patient and partner. Information regarding past pregnancy history, contraceptive methods used, sexually transmitted diseases contracted and presence of other children in the household was also collected. The data collection was limited to that available in the chart for this retrospective study, therefore, some data, such as income, was not available.

Results

The medical records of all pregnant women who had sought prenatal care at the rural health clinic since the inception of the prenatal program (2 years) were reviewed. The number of charts was 63.

The demographic characteristics of the pregnant women and their partners appear in Table 1. All of the women were Caucasian. Most pregnant women were between the ages of 20-29, 41.3% were adolescents. The mean age for pregnant women was 21.49 (52.4% in range of 20-29). The mean age for partners of pregnant women was 24.58 (51.6% in range of 20-29). Data analysis indicated that abused women were all older than age 19 (range 19-32). Almost half of the partners of abused women were under the age of 30 (range 22-34). More than half of the pregnant women (52.4%) and their partners (54.2%) had less than 12 years of education. Among abused women, data showed that 41.6% had less than 12 years of education, and 72.7% of partners of abused women had less than 12 years of education. Most of the pregnant women (55.6%) were single; 38.1% were married. Of abused women, 41.6% were married, 33% were single. In non-abused women 37.2% were married and 60.7% were single. The majority of pregnant women (63.5%) were unemployed; 41.4% of partners of pregnant women had mostly low paying, full-time jobs. Abused women and their partners were more likely to be unemployed than non-abused women and their partners. Most of the women were experiencing

their first (46%) or second (31.7%) pregnancy. Twelve out of 63 patients (19%) reported recent or past abuse (within a year prior to pregnancy); 12.7% reported physical abuse. Mental abuse, including emotional abuse was reported by 9.5% of the subjects. Four out of 63 subjects (6.3%) were treated for physical abuse during pregnancy. All who reported abuse reported that the abuse was perpetrated by a spouse or male partner. Characteristics of abuse, STD history, contraception use and substance use characteristics are shown in Table 2. Data indicated that most of the pregnancies were not planned and only 31.7% of women used contraceptives prior to pregnancy. The proportion of women who reported a past STD was 6.3%. Tobacco use prior to conception was 55.6%; 11.17% used alcohol, and 9.5% used illicit drugs before pregnancy. During pregnancy, tobacco use was most prevalent in the population, (44.49%) followed by alcohol use, (3.2%). No illicit drug use was reported during pregnancy.

There were no significant differences between abused women and non-abused women and their partners in age, highest level of education completed or employment. Also, no significant differences between abused and non-abused pregnant women were found in contraception history, alcohol use, illicit drug use or presence of other children at home. However, significant relationships did exist between STD history and abuse, tobacco use and abuse, and marital status and abuse in pregnant women.

Table 3 presents characteristics of abused pregnant women versus non-abused pregnant women. A consistent increase in percentage was found among tobacco use, alcohol use, STD history and contraception use in abused, pregnant women. While some statistically significant results were noted, given the small numbers of abused women in the sample (n=12), a discussion of the trends in the data are included as important to consider in future research. A significant relationship existed between tobacco use and abuse in pregnant women. A high proportion of

women, 83.3%, who were abused used tobacco ($x2 = 9.079$, $df = 1$, $p = .0026$) versus only 35.3% of pregnant women who were not abused. No significant relationships were found between alcohol use or illicit drug use during pregnancy in abused women. However, alcohol use was more prevalent among abused women (8.3%) than among non-abused women, (2.0%). Another significant relationship was found between STD history and abuse in pregnant women. Twenty-five percent of the women who were abused had experienced a past STD ($x2 = 8.672$, $df = 1$, $p = .0032$) versus 2.0% of women who were not abused. Contraception use prior to pregnancy was similar in abused and non-abused women. A third significant relationship was found between marital status and abuse ($x2 = 10.03$, $df = 3$, $p = .0183$). Women who were abused were more likely to be married than women who were not abused. Also, although there was no significant relationship between abuse of pregnant women and the presence of other children at home, 75% of abused women had other children at home compared to 39.2% of non-abused women who had other children at home.

Table 1
Demographics of Pregnant Women and Partners

Variable	Patient (%)	Partner (%)
Age (Years)		
< 19	41.3	26.7
20-29	52.4	51.6
30-39	6.3	18.4
> 40	0	3.3
Education (Highest Year Completed)		
8	7.9	3.4
9	15.9	6.8
10	22.2	22.0
11	6.3	22.0
12	42.9	45.8
13	3.2	0
14	1.6	0
Marital Status		
Single	55.6	
Married	38.1	
Divorced	4.8	
Separated	1.6	
Employment		
Student	14.3	13.8
Part time employment	9.5	10.3
Full time employment	12.7	41.4
Unemployed	63.5	34.5

N=63 N=60

Table 2
Abuse, STD History, Contraception Use and Substance Use

Variable	Percent
Abuse	19.0
Physical	12.7
Mental	9.5
STD History	6.3
Use of Contraception Prior to Pregnancy	31.7
Substance Use During Pregnancy	
Tobacco	44.4
Alcohol	3.2
Illicit Drugs	0

N=63

Table 3
Characteristics of Pregnant Women: Abused vs. Nonabused

Variable	Percent
Tobacco Use	
Abused	83.3
Non abused	35.3
Alcohol Use	
Abused	8.3
Non abused	2.0
Illicit Drug Use	
Abused	0
Non abused	0
STD History	
Abused	25
Non abused	2.0
Use of Contraception Prior to Pregnancy	
Abused	33.3
Non abused	31.4
Married	
Abused	41.6
Non abused	37.2
Single	
Abused	33
Non abused	60.7
Other Children at Home	
Abused	75
Non abused	39.2

N=63 (total sample) N=12 (abused)

Discussions

After reviewing the data collected during the initial phase of this evaluation of domestic violence in pregnancy in a rural health center, several key factors were felt to deserve provider attention. First, the incidence of abuse during pregnancy among women in this rural area of West Virginia was found to be 19%. This percentage is considerably higher than found in the literature where abuse during pregnancy has been reported to affect one in six women (16.6%)(McFarlane, Parker, and Soeken, 1996a). We found that 12.7% of women experienced physical abuse and 9.5% experienced mental abuse. Some women experienced both types of abuse. Most abused women and their partners were in their twenties and married, which was inconsistent with the findings of other studies in the literature (Dye, Tolliver, Lee & Kenney, 1995).

Consistent with the stressful life situations experienced by abused women, there was clearly a higher incidence of substance use during pregnancy in abused women. A significant relationship existed between tobacco use and abuse of pregnant women. A low incidence of alcohol and illicit drug use was noted in pregnant women. However, compared with smoking, the use of alcohol and illicit drugs is more socially unacceptable and, as a result, is difficult to measure via self-report. Another significant relationship which was found was between STD history and abuse in pregnant women. This finding may be attributed to a predisposition of abusive male partners to have more than one sexual partner, and to not practice safe sex, since a common characteristic of abusers is exercising "controlling" behavior towards their partners (Parker, 1995). Accordingly, most pregnancies in this study were not planned. All of these factors place these pregnancies at risk of poor outcomes.

Next, even though no significant relationship was found between other children living at home and abuse of pregnant women, an overwhelming 75% of women who reported abuse had other children at home. The degree of abuse against the woman and abuse during pregnancy may be risk factors for potential child abuse. Children who witness or directly experience abuse may later exhibit a wide range of problems. School achievement anxiety, phobias, depression, difficulty forming relationships, sexuality and communication are all negatively affected. The majority of abusive men come from homes where they witnessed the abuse of mothers or were abused themselves as children (Bohn, 1990). In one-third to over one-half of homes of battered women, children are physically abused or seriously neglected (Bekemeier, 1995).

Finally, a significant relationship was found between marital status and abuse of pregnant women. Abused women were more likely to be married than single. Battered women in rural areas may be more likely to stay in an abusive marriage for financial reasons. Access to help may be limited by a lack of public transportation, by distance, and by unavailability of supportive social agencies. It is likely that many women fail to seek help because they do not know what resources are available. Some women aren't even aware that domestic violence is a crime. Furthermore, some women have been socialized to carry the burden of keeping the marriage together; failed marriages are often damaging to a woman's self-esteem. Women may also fear losing family relationships and, especially in this group, fear losing their children (Noel & Yam, 1992).

Limitations of the Study

Several limitations of this study are recognized. First, the retrospective nature of the study is a limitation. Certain data which would have provided a clearer picture (such as income) of the population were not available. Therefore, proxy measures of employment and insurance

status were used, but may be deceiving. Next, only small numbers of charts were available for review. This is a realistic limitation in research conducted in single, rural communities, as only small numbers of the population may be affected by the variable of interest, in this case pregnancy, and further, domestic violence in pregnancy. Currently, efforts to overcome these limitations in analyzing domestic violence in pregnancy in this rural community are ongoing. Data related to domestic violence are being collected prospectively on all pregnant women who initiate and continue prenatal care at the rural health center. This has allowed the tailoring of assessments and data collection to best meet the needs of clinicians for care provision, and researchers for program evaluation. Additionally, multi-year data are being collected to allow for larger numbers of subjects for future evaluation.

Implications for Practice

In response to these problems identified in this pilot study, strategies at three levels were initiated. These included strategies at the individual, provider, and community level.

Individual Strategies

Since the incidence of domestic violence in pregnancy is thought to be underreported, and there have been no sociodemographic predictors of domestic violence in pregnancy identified, we concur with the recommendations of others in the literature to screen all pregnant women for abuse. In addition, we have found that using at every prenatal visit the brief method of clinical screening recommended by MacFarlane and colleagues(1996b), which includes only two questions, has been successful in identifying abuse in a large segment of our population. Once abuse has been identified, appropriate individual strategies are implemented. These include safety assessment, support, counseling, referral to abuse services, and ongoing prenatal care. Implementation of these services required provider education and awareness.

Provider Strategies

The rural health center where this program was implemented serves as a year round education site for health sciences students from the disciplines nursing (graduate and undergraduate), medicine, pharmacy, physical therapy, and dentistry. University faculty and field faculty serve as providers of care as well as educators for students. Through the West Virginia Rural Health Education Partnerships program, multidisciplinary seminars are provided weekly for all students. The faculty and providers felt that this was an excellent opportunity to provide education and information for students from all disciplines regarding assessment of abuse and danger, support services that are available in the rural community, referrals, and protocols for practice. Monthly inclusion of a topic related to domestic violence and abuse has been instituted.

Community Strategies

Many opportunities exist for community education relative to domestic violence. The results of this study document the need for community awareness of an urgent health care problem. Representatives of domestic violence programs are now included in health fairs and information sessions held in the community. Domestic violence education has been integrated into the curriculum for training lay home visitors of pregnant women in the community. Information for patients is available in the health center waiting rooms, restrooms and examination rooms and throughout the community. Domestic violence information has also been included in the center's quarterly newsletter, mailed to every household in the community.

Implications for Future Research

The pilot study reported here documents the need for further evaluation of domestic violence in pregnancy and related factors in rural health centers. An ongoing study seeks to

extend the pilot study by evaluating prenatal and delivery outcomes in this rural health center. The specific aims of this study included development of a data base to link prenatal outcomes achieved at the rural health center with delivery outcomes accomplished at the urban delivering hospital. This data base allows providers and researchers to, among other things, evaluate the incidence of domestic violence in the prenatal period, and to also evaluate links between that violence and pregnancy outcomes. Rural health centers frequently do not have the infrastructure to link these outcomes, but information regarding outcomes is essential for evaluation of care and program planning. The system developed in this study can serve as a model for other rural health centers providing prenatal care. Data analysis for this study is underway. Another proposed study seeks to intervene in rural communities to improve pregnancy outcomes. That study will use a community empowerment model to facilitate home visiting and ongoing support during pregnancy by lay women, and to empower community members, organized into local "community empowerment boards", to capitalize on the strengths found within the community while analyzing and overcoming barriers to improved pregnancy outcomes. This model, which shifts control from health care providers to people indigenous to rural communities, offers promise in tackling complex health and social problems such as domestic violence and pregnancy. A funding decision is pending.

Conclusion

With the inclusion of domestic violence assessment as a part of the initial and ongoing routine assessment for all pregnant women in a rural health clinic, episodes of domestic violence at a rate somewhat higher than that noted in the literature were discovered. It is imperative that providers take the initiative and include abuse assessment as part of every routine clinical assessment. The prenatal period, when health promotion is a priority, is an opportune time for

assessment, intervention and prevention of abuse. Providers should partner with women, their families and the community to improve pregnancy outcomes through providing secondary prevention services for abused pregnant women and primary prevention services for non-abused women.

References

Bekemeier, B. (1995). Public health nurses and the prevention of and intervention in family violence. *Public Health Nursing, 12*, 222-227. https://doi.org/10.1111/j.1525-1446.1995.tb00140.x

Bohn, D.K. (1990). Domestic violence and pregnancy: Implications for practice. *Journal of Nurse-midwifery, 35*(2), 86-97. https://doi.org/10.1016/0091-2182(90)90064-C

Dye, T.D., Tolliver, N., Lee, R., & Kenney, C. (1995). Violence, pregnancy and birth outcome in Appalachia. *Pediatric and Perinatal Epidemiology, 9*, 35-47. https://doi.org/10.1111/j.1365-3016.1995.tb00117.x

McFarlane, J., Greenberg, L., Weltge, A., & Watson, M. (1995) Identification of abuse in emergency departments: Effectiveness of a two question screening tool. *Journal of Emergency Nursing, 21*, 391-394. https://doi.org/10.1016/S0099-1767(05)80103-5

McFarlane, J., Parker, B., & Soeken, K. (1996) Abuse during pregnancy: Associations with maternal health and infant birth weight. *Nursing Research, 45*, 1, 37-42. https://doi.org/10.1097/00006199-199601000-00007

McFarlane, J., Parker, B., & Soeken, K. (1996). Physical abuse, smoking and substance use during pregnancy: Prevalence, interrelationships, and effects on birth weight. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 25*, 313-320. https://doi.org/10.1111/j.1552-6909.1996.tb02577.x

Noel, N., & Yam, M. (1992). Domestic violence: The pregnant battered woman. *Nursing Clinics of North America, 27*, 871-85.

Parker, V.F. (1995). Battered. *RN, 58*(1), 26-29.