Somatic Consequences of Violence Against Women

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The rapidly growing literature on the somatic, nonpsychiatric effects of violence on women's health is reviewed, including rape, battery, and the adult consequences of child sexual abuse. The sequelae of these victimizations are summarized with consideration of acute effects (genital and nongenital injuries, sexually transmitted disease, and pregnancy), late consequences (chronic pelvic pain and other forms of chronic pain, gastrointestinal symptoms, premenstrual symptoms, and negative health behaviors), and long-term increases in the use of medical services. A recurrent theme across the literature is that the medical treatment of all types of victimized women can be improved by providing attention to the underlying cause of their symptoms. Achievement of this goal requires that physicians identify victimization history and provide access to appropriate support services. Because all forms of violence against women are prevalent among primary care populations, and victimization is clearly linked to health, health care providers cannot afford to miss this relevant history. The article concludes with suggestions for fostering and responding to disclosures of victimization. *(Arch Fam Med. 1992;1:53-59)*

Victimization is a diagnosis that physicians are increasingly expected to make as frontline health care providers.[1-4] Because of their high level of public contact and the decreased stigma compared with mental health providers, primary care physicians are an important resource for women victimized by sexual and physical violence, including rape, domestic violence, and the adulthood sequelae of sexual abuse in childhood.[5] Until recently, the medical literature had focused exclusively on forensic issues and acute treatment.[6-10] Consideration of somatic consequences that extended beyond the emergency period was limited to the psychological aftereffects. Now, a rapidly growing body of research associates victimization by violence to physical illnesses. This article provides a review of the somatic outcomes, including acute conditions, delayed consequences, and related changes in longitudinal medical care usage. The primary sources for this review were obtained through computer-assisted literature searches using MEDLINE and PSYLIT databases through 1991. Although men are victims too, the literature reviewed focuses almost exclusively on women. The scope of violence against women is enormous[11-26]: one in five women has been a victim of completed rape[19-23]; one in four women has been physically battered[24]; and 15% to 62% of women recall at least one incident of childhood sexual abuse before age 18 years.[14-18]

Women are much more likely than men to be the targets of rape, battery, and

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child abuse. Forty-two percent more episodes of severe battering are sustained by women[12]; nine of 10 rape victims are women, according to the National Crime Victimization Survey[11]; and 78% of the substantiated cases of child sexual abuse involve girls.[13]

VICTIMIZATION-INDUCED CHANGES IN MEDICAL UTILIZATION

Victimized women compared with those whose lives are untouched by violence perceive their health less favorably, experience more symptoms across virtually all body systems (except skin and eye), and report higher levels of injurious health behaviors such as smoking or failure to use seat belts.[27] These findings, and the fact that all forms of intimate-perpetrated violence are more likely to involve multiple incidents across time, increase the potential for victims to visit their physician repeatedly.[28] Considerable evidence substantiates increased medical utilization by victimized women[27,29-36]:

1. Twenty-two percent of women raped or molested in childhood visited a physician 10 or more times a year compared with 6% of nonvictimized women.[33]

2. Physician visits were twice as high among women raped and assaulted in adulthood compared with nonvictimized women (6.9 vs 3.5 visits per year).[27]

3. Medical expenses were 2.5 times higher among severely victimized women compared with nonvictimized women ($401 vs $161).[27]

4. Victimization severity was the most powerful predictor of total yearly physician visits and outpatient costs.[27]

5. The biggest increases in medical utilization occurred in the second year following victimization.[27]

In response to financial implications of these data, Robert McAfee, MD, vice chairman of the American Medical Association Board of Trustees, concluded, "In addition to the terrible human toll, violence strains the resources of our health care system. . . . When we are being constantly criticized about health care costs, this is one of the factors driving those costs up" (*Am Med News.* March 4, 1991:34).

ACUTE MEDICAL CONSEQUENCES OF VIOLENCE

Although victimized women seek care in a variety of settings, for many the emergency department is the typical point of entry into the health care system.[6,37] Emergency treatment protocols of battery and rape victims delineate physicians' responsibilities, including psychological and somatic issues.[6-10] The medical treatment of battery includes identification and treatment of violence-linked injuries, elicitation of the details of abusive relationships to foster self-identity as a domestic violence victim, creation in the patient's mind of a realistic view of the severity and danger of her living situation, exploration of treatment options, and documentation in the medical record of the intervention to promote future medical provider's ability to provide continuity of care.[6,38,39] The physician's responsibility in treating rape victims is to provide prompt treatment of physical injuries, prevention of sexually transmitted disease (STD), prophylaxis to prevent pregnancy, psychological support with arrangement for follow-up counseling, and forensic documentation.[7-10,40,41]

Nongenital Injuries

Domestic violence accounts for more injuries than automobile accidents, muggings, and rapes combined; injuries necessitating surgical intervention are most often perpetrated by male intimates.[39] Physical injury patterns of domestic violence generally involve contusions or minor lacerations to the face, head, neck, breast, or abdomen, and are distinguished from unintentional injuries, which generally involve the periphery of the body.[41] Compared with victims of accidental injuries, victims of domestic violence are more likely to have injuries to the breast, chest, or abdomen[42]; multiple injuries to various parts of the body[42]; and past injuries, including old fractures and bruises, in various stages of healing.[43]

Battery is rarely a presenting complaint; more common clinical presentations include anxiety, depression, chemical dependency, chronic headaches, abdominal pain, complaints of sexual dysfunction, recurrent vaginal infections, joint pain, muscle pain, sleeping and eating disorders, and suicide attempts.[38,39,41,44] Some writers have suggested that battery may be the most important precipitant of female suicides yet identified.[41] Estimates are that one of four suicide attempts by women is preceded by abuse. Among black women, the figure may be so high that one in two suicide attempts follows domestic violence. However, the data for these conclusions are few and bear replication in other centers. Domestic violence should be suspected whenever new injuries are seen in the presence of vague complaints and evidence of old injuries and whenever risk factors are present, including alcohol or drug dependence in the partner, violence in the family of origin, living in poverty, and unemployment.[45]

Physical injuries are also seen in some 40% of rape victims.[46,47] These include minor and major abrasions or contusions anatomically centered about the head, neck, and face (50%), and involving the extremities (33%) or the trunk region (15%).[46] Severe injuries consist of equal numbers of multiple traumas, major fractures, and major lacerations.[46] Physical symptoms include the direct effects of trauma, such as general soreness, bruising, and irritation.[48] Skeletal muscle tension may be manifested in tension headaches, fatigue, and sleep pattern disturbances following injury. Gastrointestinal irritability is another presenting problem that encompasses symptoms of stomach pains, nausea, decreased appetite, and inability to taste food.

Genital Injuries

In patients presenting with vaginal hemorrhage, bleeding should be assumed to be a complication of pregnancy until proven otherwise.[49] Included in the full differential diagnosis is the possibility that the bleeding is rape-induced. The difficulty documenting genital findings in rape victims by gross visualization is well known. The use of the colposcope may significantly increase reliability.[50] Genital injury patterns include the following:

1. Half of the rape victims seen in trauma centers have vaginal and perineal trauma (from microscopic to major), including vulvar contusions and hymenal and vaginal lacerations.[46]

2. Fifteen percent of victims have significant vaginal tears; 1% require surgical repair of the laceration.[46,51]

3. Genital injuries are more likely to occur in elderly victims.[36]

One third of rapes include oral or anal penetration in addition to vaginal contact.[46,47] Most anorectal injuries present as nonperforating mucosal lacerations, disruptions of anal sphincters, retained foreign bodies, and transmural perforations of the rectosigmoid, and are produced by penile penetration as well as introduction of digits, hands, blunt objects, or foreign bodies into the rectum.[52,53]

Sexually Transmitted Diseases

Sexually transmitted diseases have been estimated to occur as a result of rape in 3.6% to 30% of victims, and can be contracted from any of 15 different organisms.[40,54-57] *Neisseria gonorrhoeae, Chlamydia trachomatis*, trichomonal infections, and syphilis are most commonly seen; however, hepatitis B and human immunodeficiency virus (HIV) infection are possible life-threatening consequences of sexual assault.[57] Untreated STDs may result in pelvic inflammatory disease. Testing for STD should be performed within 24 hours and prophylaxis should be given within 72 hours.[58,59] Evaluation and treatment guidelines are available.[58,59] The Centers for Disease Control evaluation guidelines for rape victims include screening for *N gonorrhoeae* and *C trachomatis* from any site of penetration or attempted penetration; collection of blood for a serologic test for syphilis; storage of the specimen for delayed testing for HIV and hepatitis B infection; examination of vaginal specimens for tunica vaginalis and for evidence of bacterial vaginosis; pregnancy testing; follow-up evaluation at 14 to 21 days to repeat studies other than those for syphilis and viral STD; and follow-up evaluation at 8 to 12 weeks to repeat serologic studies and screen for hepatitis B and/or HIV.[58]

The risk of contracting HIV during sexual assault is currently unknown, but cases have been reported in women with no other risk factors except rape.[57,60-62] The frequency of HIV transmission by rape is certainly less than for other routes of transmission; however, the assumption is premature that HIV transmission is minimal.[63] Physicians need to address the issue of possible HIV transmission at the initial contact and provide appropriate sequential testing. Within 3 months of rape, 26% of victims spontaneously mentioned acquired immunodeficiency syndrome as a concern; for half, it was their primary concern in the immediate period after the rape.[64] Current indications suggest the HIV antibodies develop within 6 months in 95% of the individuals who become infected after exposure.[58,59]

According to a recent national telephone survey that included rape victims who sought medical care, pregnancy testing or prophylaxis was not received by 60% of rape victims, and no information or testing for exposure to HIV was reported by 73% of victims.[26] These retrospective data would have included some rapes that occurred before the present era of acquired immunodeficiency syndrome awareness, and it is possible that physicians may have skipped pregnancy testing in certain cases, such as in premenarchal and postmenopausal victims. It is more difficult to rationalize the absence of information or testing for STDs that was reported by 39% of victims.[26]

Pregnancy

Five percent of rape victims become pregnant.[23,40] Therefore, counseling about the possibility of pregnancy, postcoital contraception, and termination of pregnancy should be discussed with victims of rape. Several strategies of pregnancy prophylaxis exist, including offering no immediate treatment, performing pregnancy testing if the next menses is missed, or repeated serum pregnancy testing 1 week after the assault. All postcoital interventions for prevention of pregnancy are ineffective after 72 hours.[40] Anticonception medication regimens consist of initially ingesting two tablets of ethinyl estradiol and norgestrel, followed by two tablets in 12 hours.[40] The physician should inform the patient of the 1% failure rate of prophylaxis and possible complications of medical intervention.

Some rape victims are already pregnant when assaulted. Examinations of rape victims at a large metropolitan hospital revealed rates of vulvar (95%), oral (27%), and anal (6%) penetration for pregnant victims that were comparable with the pattern in nonpregnant women.[65] The site of trauma did not vary with gestational age, with injuries seen more often in nonpregnant victims. No spontaneous abortions, deliveries, preterm rupture of membranes, or premature detachment of the placenta occurred within 4 weeks of the rape.[65] Because this study lacked a comparison sample, it was not possible to draw conclusions about the health of the newborns.

Pregnancy is a risk factor for the initiation or escalation of physical abuse.[66-72]

1. Sixty percent of pregnant women sustain some degree of physical aggression.[66]

2. The abdomen is targeted twice

as frequently in pregnant women as in nonpregnant victims.[45]

3. Fifteen percent of a national sample were battered during the first half of pregnancy and 17% were battered during the last half.[68]

4. Eight percent of a random sample of public and private hospitals reported violence during the current pregnancy.[69]

5. At initial prenatal visits, 4% of obstetric patients at a university hospital reported that physical abuse occurred during their current pregnancy.[70]

6. Women with a history of battery are three times as likely to be injured during pregnancy than nonbattered women.[30,69,70]

Women who were battered while pregnant were attacked on the head and neck (57%); breasts, abdomen, and genitals (20%); and arms, buttocks, back, and legs (22%). These assaults have been associated with preterm labor, premature rupture of the membranes, placental separation, antepartum hemorrhage, fetal fractures, and rupture of the uterus, liver, or spleen.[71] Direct trauma to the abdomen also may increase the risk of adverse outcomes for the fetus.[45] Battered women experience more negative pregnancy outcomes, including miscarriages, stillbirths, and low-birth-weight newborns.[66,67,69,71] Among 589 women at public and private hospitals interviewed about battery post partum, the rate of low-birth-weight newborns was 13% in women who had been beaten compared with 7% in nonbattered women.[72] The differences were more pronounced among private hospital patients, but as the samples were not representative, the results must be replicated at other sites. In response to these findings, the Surgeon General has recommended that all pregnant women be examined for battery as part of routine prenatal assessments.[1]

LATE COMPLICATIONS OF VICTIMIZATION

Recent studies have documented a range of long-term problems that are diagnosed more frequently among women with a history of victimization.

Chronic Pelvic Pain

Of the 650 000 hysterectomies performed annually, an estimated 78 000 are performed for chronic pelvic pain.[73] The prevalence of physical and sexual abuse is elevated among women with chronic pelvic pain whether with or without demonstrated disease.[73-79]

1. Sixty-four percent of women who had undergone laparoscopy for pelvic pain had histories of child sexual abuse compared with 23% among women who had undergone the procedure for bilateral tubal ligation or infertility.[74]

2. Forty-eight percent of women who had laparoscopy for pelvic pain had histories of rape compared with 13% of those without pain who had undergone the procedure.[74]

3. Forty-eight percent of patients with chronic pain reported sexual abuse compared with 7% among age-matched pain-free controls.[73]

4. Sixty-seven percent of women with pelvic pain without demonstrable pathologic characteristics experienced sexual abuse compared with 28% among those with somatic causes of their pain.[79]

5. Negative postoperative sequelae of hysterectomy are increased in women with victimization histories.[80]

Other Chronic Pain Syndromes

An association between various forms of victimization and an array of chronic pain disorders, including headache, back pain, facial pain, temporomandibular joint, and bruxism, has been described in the clinical literature.[30,81,82] Among patients treated at multidisciplinary pain centers:

1. Fifty-three percent of 151 patients with pain were either physically and/or sexually victimized; 90% of the victimizations occurred in adulthood; the average duration of abuse was 12 years.[82]

2. Sixty-six percent of 30 women examined for chronic headaches were either physically or sexually victimized; the average duration of abuse was 8 years.[83]

3. Victimized patients were more likely to experience daily problems, hospitalizations, surgical procedures, and onset of headaches after age 20 years.[83]

4. Violence predated the chronic pain in all cases.[83]

Premenstrual Syndrome

Another gynecologic disorder associated with victimization is premenstrual syndrome. Premenstrual syndrome is heralded by changes that occur regularly during the luteal phase, including cognitive, affective, behavioral, and somatic symptoms.[84,85] A history of child sexual abuse and rape was reported by 40% of 174 consecutive patients with premenstrual complaints.[84]

Gastrointestinal Symptoms

The term *functional gastrointestinal disorders* describes numerous symptoms throughout the length of the gastrointestinal tract, including irritable bowel syndrome, nonulcer dyspepsia, and chronic abdominal pain.[34,86] Irritable bowel syndrome is defined as alternating bowel function, abdominal pain, diarrhea, or constipation.[87] There appears to be a large overlap between patients with irritable bowel and chronic pelvic pain. Symptoms consistent with irritable bowel syndrome are evident in more than 60% of gynecologic referrals for chronic pelvic pain.[88] As in pelvic pain, victimization histories are common in patients with irritable bowel syndrome:

1. Forty-four percent of patients in a university-based gastroenterology clinic reported a history of sexual or physical victimization during childhood or adulthood.[34]

2. Two thirds of the gastrointestinal complaints in these patients were medically explained; one third were judged to be of functional origin.[34]

3. More extensive victimization histories were associated with

functional origin and greater pain symptoms.[34]

Negative Health Behaviors

A history of victimization by violence is associated with several negative health behaviors that can have life-threatening consequences.[89-98] Unusually high rates of sexual victimization have been found among patients with eating disorders, of whom 58% had been sexually abused before age 15 years[89]; bulimic women, of whom 23% had been raped, 23% had been battered, 29% had been sexually abused as children, and 29% were physically abused as children (categories not mutually exclusive)[90,91]; chemically dependent women, in whom the prevalence of victimization histories among alcoholic women ranges from 34% to 75%[93,97]; and women with at least one risk factor for acquiring or transmitting HIV, of whom 46% had histories of sexual victimization.[98]

PROCESSES BY WHICH VICTIMIZATION MAY AFFECT HEALTH

Although the high prevalence of victimized patients among study samples could reflect a concentration of these difficult cases into the tertiary care centers,[34] the evidence suggests a high prevalence of victimization in primary care samples as well.[23] In a recent survey of 2291 women patients enrolled in a health maintenance organization, only 43.2% were nonvictimized; 23.9% had experienced noncontact crime victimization, 11.6% had been physically assaulted, 13.9% had been raped, and 7.4% had been both raped and assaulted in their lifetimes.[23] In 1 year, 77 of 1000 women were victimized by violent crime.[23] Victimized women sought medical care more frequently for a variety of chronic symptoms, some medically explained and some diagnosed as functional or psychogenic. The mechanisms by which these symptoms are created are not yet known, but multiple theories exist about possible routes by which violence could affect health, including stress-induced lowering of resistance[99,100]; enduring changes in health habits initiated to cope with trauma[100,101]; as yet undocumented physical damage secondary to the violence; chronic overarousal due to posttraumatic stress disorder[102]; heightened focus on internal sensations[103,104]; misattributions about the significance of symptoms, including normal sensations and the physiologic concomitants of emotional distress[100]; and interaction with biomedically focused health care system.[105]

FOSTERING DISCLOSURE OF VICTIMIZATION

In most cases, physicians focus on treatment of the physical injuries and overlook the underlying cause.[42] Patients rarely volunteer and physicians seldom ask about a history of physical or sexual violence.[105,106] Failure of physicians to screen for victimization has at least two negative health consequences. First, patients are left at continuing risk. Intimate violence in particular is repetitive and cross-generational. Ignoring it may produce a patient who will return repeatedly for multiple problems and may enhance the potential of other members of the patient's family to become future victims and/or patients. Second, physical problems cannot be resolved without dealing with the underlying cause. When physicians fail to question their patients about violence, it communicates lack of permission to discuss these issues in the medical setting. If psychosocial variables are ignored in diagnosis, somatic complaints may be inaccurately and inappropriately diagnosed and treated exclusively as organic pathologic conditions.[107] By ignoring the psychosocial context in which the symptoms arise, health care providers are potentially responsible for entrenching misattributions about the significance and meaning of the physical sensations.

Patients are often willing to discuss victimization experiences if asked. Those who delay seeking treatment and provide misleading histories do so because of embarrassment, fear of public humiliation, and social stigma.[40,47] For most individuals, the process of labeling oneself a victim is difficult and becomes especially complicated when the events have occurred within the family setting or if the actions were ambiguous.[108] The implications for medical practitioners are twofold. First, because of the struggle to avoid the devaluation inherent in being a victim, women who have suffered physical or sexual abuse infrequently use words like rape, incest, molestation, child abuse, battery, wife beating, or domestic violence to label what has happened to them. Practitioners may be more successful in detecting violence if they simply describe behaviors, stay away from loaded terms, and avoid professional jargon. Second, recognition needs to be made of the possibility that the family member accompanying the patient is the perpetrator. Screening for violence whether in person or by checklist must take place under circumstances that provide the safety to implicate intimates. By routinely asking a few simple screening questions, practitioners offer their patients the opportunity to confide in a caring person. Many victims have never told anyone about their experiences.[23] However, the simple act of disclosing is associated with positive changes in indicators of immune response.[109] In response to confidences shared, practitioners need to validate the women's experience. Women who assert charges of abuse are often met with questioning about their credibility and culpability. The single most helpful response that can be made to a confidant about victimization is validation of the individual's experiences.[4,38,110] When appropriate, health care providers can also refer to mental health professionals or trauma-specific resources in the community. Currently, physicians everywhere are under enormous pressure to handle efficiently a large volume of patients without lowering standards of care. Identification of patients with a history of victimization reduces the potential of

negative health sequelae, promotes more efficient use of resources, and improves patient well-being.

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REFERENCES

1. US Department of Health and Human Services, US Department of Justice. *Surgeon General's Workshop on Violence and Public Health: Report.* Washington, DC: US Dept of Health and Human Services; 1986.
2. US Department of Justice. *Attorney General's Task Force on Family Violence: Final Report.* Washington, DC: US Dept of Justice; 1984.
3. *The Battered Woman.* Washington, DC: American College of Obstetricians and Gynecologists; 1989. American College of Obstetrics and Gynecologists technical bulletin 124.
4. Council on Scientific Affairs, American Medical Association. Violence against women: relevance for medical practitioners. *JAMA.* 1992;267:3184-3189.
5. Steinwachs DM, Weiner JP, Shapiro S, Batalden P, Coltin K, Wasserman F. A comparison of the requirements for primary care physicians in HMOs with projections made by GMENAC. *N Engl J Med.* 1986;314:217-222.
6. Goldberg WG, Tomlanovich MC. Domestic violence in the emergency department. *JAMA.* 1984; 251:3259-3264.
7. Hochbaum SR. The evaluation and treatment of the sexually assaulted patient. *Obstet Gynecol Emerg.* 1987;5:601-621.
8. Martin CA, Warfield MC, Braen R. Physician's management of the psychological aspects of rape. *JAMA.* 1983;249:501-503.
9. Hicks DJ. The patient who's been raped. *Emerg Med Clin North Am.* 1988;20:106-122.
10. Hicks DJ. Sexual battery: management of the patient who has been raped. In: Sierra JJ, ed. *Gynecology and Obstetrics, VI.* New York, NY: Harper & Row Publishers Inc; 1990:1-11.
11. Flanagan R, Baum A, Singer JE. *Sourcebook of Criminal Justice Statistics: 1985.* Washington, DC: US Dept of Justice, Bureau of Justice Statistics; 1986. Document NCJ-100899.
12. Strauss MA, Gelles RJ. *Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8,145 Families.* New Brunswick, NJ: Transaction Books; 1990.
13. Wyatt GE, Powell GJ, eds. *Identifying the Lasting Effects of Child Sexual Abuse: An Overview.* Beverly Hills, Calif: Sage Publishers Inc; 1988:11-17.
14. Committee on Sexual Offenses Against Children and Youth. *Sexual Offenses Against Children, I.* Ottawa, Ontario: Supply and Services Canada; 1984.
15. Kercher G, McShane M. The prevalence of child sexual abuse victimization in an adult sample of Texas residents. *Child Abuse Negl.* 1984;8:495-502.
16. Russell DEH. The incidence and prevalence of intrafamilial and extrafamilial sexual abuse of female children. *Child Abuse Negl.* 1982;7:133-146.
17. Wyatt GE. The sexual abuse of Afro-American and white-American women in childhood. *Child Abuse Negl.* 1985;9:507-519.
18. Wyatt GE, Newcomb M. Internal and external mediators of women's sexual abuse in childhood. *Child Abuse Negl.* 1990;58:758-767.
19. Burt MR. *Attitudes Supportive of Rape in American Culture.* Rockville, Md: National Center for the Prevention and Control of Rape; 1979. Final report to the National Institute of Mental Health (grant RO1 MH29203).
20. Kilpatrick DG, Saunders BE, Veronen LJ, Best CL, Von JM. Criminal victimization: lifetime prevalence, reporting to police, and psychological impact. *Crime Delinq.* 1987;33:478-489.
21. Russell DEH. The prevalence and incidence of forcible rape and attempted rape of females. *Victimology.* 1982;7:81-83.
22. Wyatt GE. The sociocultural context of African-American and white American women's rape. *J Soc Issues.* 1992;48:77-91.
23. Koss MP, Woodruff WJ, Koss PG. Criminal victimization among primary care medical patients: incidence, prevalence, and physician usage. *Behav Sci Law.* 1991;9:85-96.
24. Strauss MA, Gelles RS, Steinmetz JK. *Behind Closed Doors: Violence in the American Family.* New York, NY: Anchor Press/Doubleday; 1980.
25. Centers for Disease Control. Education about adult violence in US and Canadian medical schools: 1987-88. *MMWR.* 1989;38:17-19.
26. National Victims Center. *Rape in America: A Report to the Nation.* Arlington, Va: National Victims Center.
27. Koss MP, Koss PG, Woodruff WJ. Deleterious effects of criminal victimization on women's health and medical utilization. *Arch Intern Med.* 1991; 151:342-347.
28. Koss MP, Dinero TE, Seibel C, Cox S. Stranger, acquaintance, and date rape: is there a difference in the victim's experience? *Psychol Women Q.* 1988;12:1-24.
29. Golding JM, Stein JA, Siegel JM, Burman M, Sorensom SB. Sexual assault history and use of health and mental health services. *Am J Community Psychol.* 1988;16:625-644.
30. Stark E, Flitcraft A. Violence among intimates: an epidemiological review. In: Van Hasselt VB, Morrison RL, Bellack AS, Hersen M, eds. *Handbook of Family Violence.* New York, NY: Plenum Press; 1988:293-318.
31. Waigandt A, Wallace DL, Phelps L, Miller DA. The impact of sexual assault on physical health status. *J Traumatic Stress.* 1990;3:93-102.
32. Cunningham J, Pearce T, Pearce P. Childhood sexual abuse and medical complaints in adult women. *J Interpersonal Viol.* 1988;3:131-144.
33. Fellitti VJ. Long-term medical consequences of incest, rape, and molestation. *South Med J.* 1991; 84:328-331.
34. Drossman DA, Lesserman J, Nachman G, et al. Sexual and physical abuse in women with functional or organic gastrointestinal disorders. *Ann Intern Med.* 1990;113:828-833.
35. Sedney MA, Brooks B. Factors associated with a history of childhood sexual experience in a nonclinical female population. *J Am Acad Child Adolesc Psychiatry.* 1984;23:215-218.
36. Muram D, Miller K, Cutler A. Sexual assault of the elderly victim. *J Interpersonal Viol.* 1992;7:70-77.
37. McLeer SV, Anwar SV, Herman S, Maquiling K. Education is not enough: a system's failure in protecting battered women. *Ann Emerg Med.* 1989; 18:651-653.
38. American Medical Association. American Medical Association diagnostic and treatment guidelines on domestic violence. *Arch Fam Med.* 1992; 1:39-47.
39. Beebe DK. Emergency management of the adult female rape victim. *Am Fam Physician.* 1991;43: 2041-2046.
40. Stark E, Flitcraft A, Zuckerman D, Grey A, Robinson J, Frazier W. *Wife Abuse in the Medical Setting: An Introduction for Health Personnel.* Washington, DC: Office of Domestic Violence; 1981. Domestic Violence Monograph series No. 7.
41. Randall T. Domestic violence begets other problems of which physicians must be aware to be effective. *JAMA.* 1990;264:940-943.
42. Stark E, Flitcraft A, Frazier W. Medicine and patriarchal violence: the social construction of a 'private' event. *Int J Health Serv.* 1979;9:461-493.
43. Burge SK. Violence against women as a health care issue. *Fam Med.* 1989;21:368-373.
44. Randall T. Hospital-wide program identifies battered women; offers assistance. *JAMA.* 1991;266: 1177-1179.
45. Berenson AB, Stiglich NJ, Wilkinson GS, Anderson GA. Drug abuse and other risk factors for physical abuse in pregnancy among white non-Hispanic, black, and Hispanic women. *Am J Obstet Gynecol.* 1991;164:1491-1499.
46. Geist RF. Sexually related trauma. *Emerg Med Clin North Am.* 1988;6:439-466.
47. Woodling BA, Kossoris PD. Sexual misuse: rape, molestation, and incest. *Pediatr Clin North Am.* 1981;28:481-499.
48. Burgess AW, Holmstrom LL. Rape trauma syndrome. *Am J Psychiatry.* 1974;131:981-986.
49. Abbott JT, Burnett LS, Hochbaum SR. Gynecologic emergencies. *Patient Care.* January 15, 1989:96-113.
50. Slaughter L, Brown CRV. Cervical findings in rape victims. *Am J Obstet Gynecol.* 1991;164:528-529.
51. Cartwright PS, The Sexual Assault Study Group. Factors that correlate with injury sustained by survivors of sexual assault. *Obstet Gynecol.* 1987; 70:44-46.
52. Chen YM, Davis M, Ott DJ. Traumatic rectal hematoma following anal rape. *Ann Emerg Med.* 1986;15:122-124.
53. Elam AL, Ray VG. Sexually related trauma: a review. *Ann Emerg Med.* 1986;15:576-584.
54. Forster GE, Estreich S, Hooi YS. Screening for STDs. *Ann Emerg Med.* 1991;324:161-162.
55. Lacey HB. Sexually transmitted diseases and rape: the experience of a sexual assault centre. *Int J STD AIDS.* 1990;1:405-409.
56. Murphy SM. Rape, sexually transmitted diseases and human immunodeficiency virus infection. *Int J STD AIDS.* 1990;1:79-82.
57. Sturm JT, Carr ME, Luxenberg MG, Swoyer JK, Cicero JJ. The prevalence of *Neisseria gonorrhoeae* and *Chlamydia trachomatis* in victims of sexual assault. *Ann Emerg Med.* 1990;19:142-144.
58. Centers for Disease Control. Sexual assault and STD. *MMWR.* 1989;38:41.
59. US Department of Health and Human Services. Sexually transmitted diseases: treatment guidelines. *Semin Urol.* 1991;19:40-70.

60. Clayton E, Murphy S, Osborne EM, Kitchen V, Smith JR, Harris JRW. Rape and HIV. *Int J STD AIDS.* 1991;2:200-201.
61. Murphy S, Kitchen V, Harris JRW, Forster SM. Rape and subsequent seroconversion to HIV. *BMJ.* 1989;10:699-718.
62. Gellert GA, Mascola L. Rape and AIDS. *Pediatrics.* 1989;83:644.
63. Gellert GA, Durfee MJ. HIV infection and child abuse. *N Engl J Med.* 1989;321:685.
64. Baker TC, Burgess AW, Brickman E, Davis RC. Rape victims' concerns about possible exposure to HIV infection. *J Interpersonal Viol.* 1990;5:49-60.
65. Satin AJ, Hemsell DL, Stone IC, Theriot S, Wendel GD. Sexual assault in pregnancy. *Obstet Gynecol.* 1991;77:710-714.
66. Stacey W, Shupe A. *The Family Secret.* Boston, Mass: Beacon Press; 1983.
67. McFarlane J. Battering during pregnancy: tip of an iceberg revealed. *Women Health.* 1989;15:69-84.
68. Getles RJ. Violence and pregnancy: are women at greater risk of abuse? *J Marriage Fam.* 1988; 50:841-847.
69. Helton A, McFarlane J, Anderson E. Battered and pregnant: a prevalence study. *Am J Public Health.* 1987;77:1337-1339.
70. Hillard PJ. Physical abuse in pregnancy. *Obstet Gynecol.* 1985;66:185-190.
71. Saltzman LE. Battering during pregnancy: a role for physicians. *Atlanta Med.* 1990;64:45-48.
72. Bullock L, McFarlane J. The birthweight/battering connection. *Am J Nurs.* 1989;89:1153-1155.
73. Reiter RC, Gambone JC. Demographic and historic variables in women with idiopathic chronic pelvic pain. *Obstet Gynecol.* 1990;75:428-432.
74. Harrop-Griffiths J, Katon W, Walker E, Holm L, Russo J, Hickok L. The association between chronic pelvic pain, psychiatric diagnosis, and childhood sexual abuse. *Obstet Gynecol.* 1988;71:579-596.
75. Caldirola D, Gamperle MB, Guzinski GM, Gross RJ, Doerr H. Incest and pelvic pain: the social worker as part of a research team. *Health Soc Work.* 1983;8:309-319.
76. Reiter RC. A profile of women with chronic pelvic pain. *Clin Obstet Gynecol.* 1990;33:131-136.
77. Walker E, Katon W, Harrop-Griffiths J, Holms L, Russo J, Hickok LR. Relationship of chronic pelvic pain to psychiatric diagnosis and childhood sexual abuse. *Am J Psychiatry.* 1988;145:75-80.
78. Rapkin AJ, Kames LD, Darke LL, Stampler FM, Naliboff BD. History of physical and sexual abuse in women with chronic pelvic pain. *Obstet Gynecol.* 1990;76:92-96.
79. Reiter RC, Sharkerin LR, Gambone JC, Milburn AK. Correlation between sexual abuse and somatization in women with somatic and nonsomatic chronic pelvic pain. *Am J Obstet Gynecol.* 1991;165:104-109.
80. Hendricks-Matthews MK. The importance of assessing a woman's history of sexual abuse before hysterectomy. *J Fam Pract.* 1991;32:631-632.
81. Haber JD, Roos C. Traumatic events in chronic pain patients. *West J Nurs Res.* 1985;7:1-2.
82. Haber JD, Roos C. Effects of spouse and/or sexual abuse in the development and maintenance of chronic pain in women. In: Fields HL, Dubner R, Cervero F, eds. *Advances in Pain Research and Therapy, IX.* New York, NY: Raven Press; 1985:889-895.
83. Domino JV, Haber JD. Prior physical and sexual abuse in women with chronic headache: clinical correlates. *Headache.* 1987;27:310-314.
84. Stout AL, Steege JF, Blazer DG, George LK. Comparisons of lifetime psychiatric diagnosis in premenstrual syndrome and community samples. *J Nerv Disorders.* 1986;174:517-522.
85. Paddison PL, Gise LH, Lebovits A, Strain JJ, Cirasole DM, Levine JP. Sexual abuse and premenstrual syndrome. *Psychosomatics.* 1990;3:265-272.
86. Waxman D. The irritable bowel: a pathological or psychological syndrome? *J R Soc Med.* 1988; 81:718-720.
87. Lowman BC, Drossman DA, Cramer EM, McKee DC. Recollection of childhood events in adults with irritable bowel syndrome. *J Clin Gastroenterol.* 1987;9:324-330.
88. Hogston P. Irritable bowel syndrome as a cause of chronic pelvic pain in women attending a gynecology clinic. *BMJ.* 1987;294:934-935.
89. Palmer RL, Oppenheimer R, Dignon A, Chaloner DA. Childhood sexual experience with adults reported by women with eating disorders: an extended series. *Br J Psychiatry.* 1990;156:699-703.
90. Root MP, Fallon P. The incidence of victimization experiences in a bulimic sample. *J Interpersonal Viol.* 1988;3:161-173.
91. Root MP, Fallon P, Friedrich WN. *Bulimia: A Systems Approach to Treatment.* New York, NY: WW Norton & Co Ltd; 1986.
92. Steiger H, Zanko M. Sexual traumata among eating-disordered, psychiatric, and normal female groups. *J Interpersonal Viol.* 1990;5:74-86.
93. Strickland BR. Women's health research priorities. Presented at the Society for the Advancement of Women's Health; April 23, 1991; Washington, DC.
94. Amaro H. Violence during pregnancy and substance use. *Am J Public Health.* 1991;80:575-579.
95. Arnold RP, Rogers D, Cook DA. Medical problems of adults who were sexually abused in childhood. *BMJ.* 1990;300:705-708.
96. Miller BA, Downs WR, Gondoli DM, Keil A. The role of childhood sexual assault in the development of alcoholism in women. *Violence Vict.* 1987; 2:157-172.
97. Hurley DL. Women, alcohol and incest: an analytical review. *J Stud Alcohol.* 1991;52:253-268.
98. Zierler S, Feingold L, Laufer D, Velentgas P, Kantorwitz-Gordon SB, Mayer K. Abuse and subsequent risk of HIV infection. *Am J Public Health.* 1991;81:572-575.
99. Cohen S, Tyrell DA, Smith AP. Psychological stress and susceptibility to the common cold. *N Engl J Med.* 1991;325:606-612.
100. Cohen S, Williamson GM. Stress and infectious disease in humans. *Psychol Bull.* 1991;109:5-24.
101. Kiecolt-Glaser JK, Glaser R. Psychosocial moderators of immune function. *Ann Behav Med.* 1987; 9:16-20.
102. Baum A. Stress, intrusive imagery, and chronic distress. *Health Psychol.* 1990;9:653-675.
103. Bard M, Sangrey D. *The Crime Victim's Book.* New York, NY: Basic Books Inc Publishers; 1985.
104. Wickramasekera I. A model of people at high risk to develop chronic stress-related somatic symptoms: some predictions. *Prof Psychol Res Pract.* 1986;17:437-447.
105. Jacobson A, Richardson B. Assault of 100 psychiatric inpatients: evidence of the need for routine inquiry. *Am J Psychol.* 1987;144:908-913.
106. Liese BS, Larson MW, Johnson CA, Hourigan RJ. An experimental study of two methods for teaching sexual history taking skills. *Fam Med.* 1989;21:21-24.
107. Katon W, Ries RK, Kleinman A. The prevalence of somatization in primary care. *Compr Psychiatry.* 1984;25:208-215.
108. Browne A. The victim's experience: pathways to disclosure. *Psychotherapy.* 1991;28:150-156.
109. Pennebaker JW, Kiecolt-Glaser JK, Glaser R. Disclosure of traumas and immune function: health implications for psychotherapy. *J Consult Clin Psychol.* 1988;56:239-245.
110. Koss MP, Harvey MR. *The Rape Victim: Clinical and Community Interventions.* Beverly Hills, Calif: Sage Publishers Inc; 1991.

Editor's Note

If family physicians routinely ask about domestic violence, there will be many positive answers. Some will reveal major, immediately life-threatening violence. Most will reveal less dramatic stories. While this article provides much information on how to function in practice, I believe it would be useful to understand more on what to do when patients reveal early, mild forms of abuse or behaviors that suggest potential abuse. Dissolution of relationships is neither an easy nor a realistic solution for many cases.

Thus, the *Archives of Family Medicine* would like to solicit practical solutions for early signs of domestic violence. What can a family physician do in small amounts of time, perhaps over repeated visits, that will make a difference for these families? We would like to publish a couple of brief responses. Thank you.

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Editor