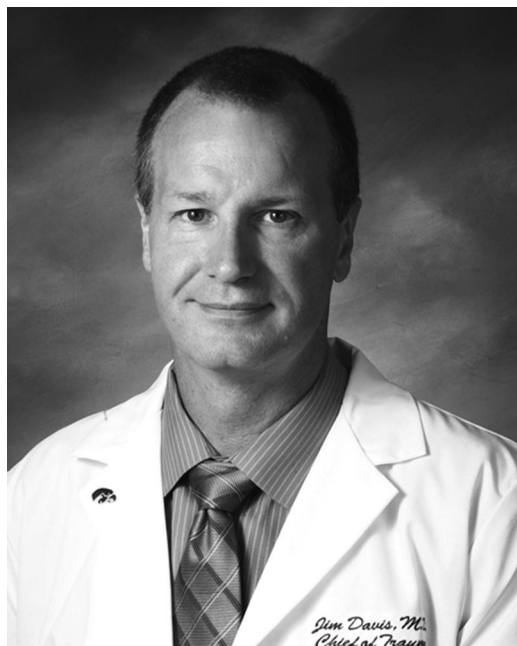


# Domestic Violence: The “Rule of Thumb”: 2008 Western Trauma Association Presidential Address

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**D**omestic violence among women of child-bearing age has been estimated to be the leading cause of serious injury and the second-leading cause of injury and death in the United States.<sup>1</sup> The rate of injury to women from battering was described as greater than that of motor vehicle crash and mugging combined.<sup>2,3</sup> It is not a new problem to modern society, discussions of intimate partner violence date back centuries.<sup>4</sup> The long-term sequelae, include health risks, posttraumatic stress disorder, depression, and the economic costs for health care, and the economic loss to victims are staggering.<sup>5</sup>

Despite the frequency and severity of domestic violence on its victims and our society, the response of the medical

community to address the issue of domestic violence has been characterized as “slow and inconsistent.”<sup>6</sup>

## Index Cases

Overall physician interest in this topic has been limited. When I was at the University of South Florida, the state-mandated continuing medical education lecture was given by Dr. Ronald A. Chez, of the Department of Obstetrics and Gynecology. Dr. Chez noted that everyone who has become interested in domestic violence had some kind of wake-up call, “epiphany” or index case. At a meeting, he had been challenged to inquire about domestic violence in his own practice. He returned home and picked a patient that he knew to be safe. She had been a patient for 20 years; he had delivered all her children and performed her annual physical. He was stunned to learn that she had been beaten regularly, two to three times per week during the entire time he had known her (R. A. Chez, MD, personal communication). After hearing Dr. Chez’s domestic violence lecture, I went to round on the trauma service and was surprised to find nearly half the patients on the floor had some domestic violence link to their hospitalizations. My own index case was a divorced woman, who was in graduate school and remarried. Within a year of her second marriage, psychologic and physical abuse began. Over the ensuing 15 years, she had multiple emergency department visits; for rib fractures after being struck in the chest, facial contusions after another beating, and finally facial fractures requiring reconstructive surgery. Despite a decade and a half history of abuse, no report of domestic violence was ever filed.

## Historical

In past centuries, violence against women was deemed a necessary form of corrective discipline. An anonymous medieval scholar, writing in the late 15th century promulgated “rules for marriage” “. . . When you see your wife commit an offense, don’t rush at her with insults and violent blows . . . scold her sharply, bully and terrify her. And if this still doesn’t work, take up a stick and beat her soundly, for it is better to punish the body and correct the soul, than to damage the soul and spare the body, not in rage but out of charity and concern for her soul, so that the beating will rebound to your merit and her good.”<sup>4,7</sup>

The exact origin of the phrase “the rule of thumb” is not precisely known; in the English Oxford dictionary it is de-

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scribed as a “rough or approximate measure,” a definition that dates back several centuries. There are also numerous references to a darker meaning. There are legal cases in both Great Britain and the United States that refer to British common law as allowing a man to beat his wife with a rod as long as it is not thicker than his thumb.<sup>7,8</sup> Whatever the true origins of the phrase, it has now been linked in both folklore and legal precedent to domestic violence. The legal right of men to beat their wives was not abolished until 1871 in the United States.<sup>9</sup> Until the 1970s, assaults on wives were considered misdemeanors, when an equal assault against a stranger would have been considered a felony.<sup>10</sup> In 1992, it became a requirement of the Joint Commission on Accreditation of Healthcare Organizations that all accredited hospitals have policies and procedures in their emergency departments and ambulatory care facilities for identifying, treating, and referring victims of abuse.<sup>10</sup>

### Incidence and Prevalence

The study and determination of domestic violence has been hampered by numerous definitions. The American College of Obstetrics and Gynecology defines domestic violence as “any act occurring between two individuals who live or have lived together that is intended or perceived to be intended to cause physical or psychologic harm.”<sup>11</sup> The Eastern Association for the Surgery of Trauma defined domestic violence as “either an injury (hitting, punching, slapping, or other trauma) or stress (from threats or violent behavior or from her own fears) to a woman caused by a boyfriend or husband” in their landmark position article on domestic violence.<sup>12</sup> Another definition of domestic violence goes further, including “a pattern of coercive control consisting of physical, sexual, and/or psychologic assault against former or current intimate partners.”<sup>13</sup> Other reports have acknowledged that child<sup>14,15</sup> and elder abuse may also be included in the spectrum of “domestic violence.”<sup>12</sup>

The actual incidence of intimate partner or domestic violence is not known. Estimates of the incidence vary widely; the US Department of Justice crime data brief on intimate partner violence reported almost 700,000 “nonfatal, violent victimizations” in 2001, and noted a nearly 50% decline in intimate partner violence against females since 1993.<sup>16</sup> However, a report from the National Institute of Justice and the Centers for Disease Control and Prevention estimated that 1.5 million women are physically assaulted or raped by an intimate partner in the United States annually.<sup>17</sup> The American Psychological Association Presidential Task Force on Violence and the Family put the number still higher, stating that 4 million women experience a serious assault by a partner during an average 12-month period.<sup>18</sup> The National Violence Against Women Survey, conducted by the National Institute of Justice and the Centers for Disease Control and Prevention in 2003 estimated 5.3 million intimate partner violence victimizations against adult women annually, with more than 550,000 requiring medical attention, loss of 8 million days of

paid work, and 5.6 million days of household productivity as a result of the violence.<sup>19</sup> Although staggering, these numbers lack a contextual framework.

- One of three women around the world has been beaten, coerced into sex, or otherwise abused during her lifetime.<sup>20</sup>
- 12% to 25% of visits by women to the emergency department were from domestic violence.<sup>21,22</sup>
- The *cumulative lifetime prevalence* to domestic violence of women seen in the emergency department was 54%.<sup>22</sup>
- Additionally, marital violence is a significant predictor of physical child abuse. In one study, the probability of child battering increased from 5% with one act of marital violence to near certainty with 50 or more acts of wife battering.<sup>23</sup> Child battering occurs in 59% of the homes with spousal abuse and may be as high as 77% with severe wife abuse.<sup>24,25</sup>

### Adolescent

Although not included in the classic definitions of domestic violence, adolescents may be exposed to dating violence. One in three teens report knowing a friend or peer who has been physically hurt by their partner (hit, punched, kicked, choked) and 13% admit to being hit or physically hurt. One in five female high school students report being physically or sexually abused by a dating partner. These abused teens are more likely to engage in subsequent risky behavior. They are four to six times more likely to become pregnant and eight to nine times more likely to attempt suicide.<sup>20</sup>

### Pregnancy

Domestic violence does not stop with pregnancy. In a report on the prevalence of violence during pregnancy, Gazmararian et al.<sup>26</sup> described a range from 0.9% to 20.1% of all pregnancies but noted that most estimates were from 4% to 8%. When extrapolated to the number of live births, violence was more common for pregnant women than pre-eclampsia or gestational diabetes, conditions for which screening is routine.<sup>27</sup> Further, a pattern of domestic violence was associated with unintended pregnancy through coercion and control of contraception.<sup>27</sup>

### The “Cycle”

A three-phase cycle has been described for battering. In the first phase, there is a gradual build up of tension, with escalation; name calling, intimidation, and mild physical abuse such as pushing. The woman may attempt to placate the batterer to calm him down and avoid aggravating him further. As the tension builds, she may withdraw in an effort not to set off explosive behavior. In the second phase, there is an uncontrollable discharge, with verbal and physical attack and frequently injury. In the third phase, the abuser

apologizes and asks for forgiveness. He may show remorse and promise that it will not recur. Because many abusers are manipulative and charming, the victim may believe the promises.

With repeated cycles, the first phase increases in length, the violence may become more acute and the third phase decreases. The abuser has learned that he has control and need not put as much effort into getting forgiven. The victim is frequently demoralized and is so lacking in self-esteem that it is difficult to leave the situation.<sup>28</sup> Additionally, the threats of retaliation, injury to children or pets, and death increase the victim's fears and helplessness. Indeed, the risk of physical violence actually increases after moving out.<sup>29,30</sup>

Unfortunately, there is a second cycle for victims of domestic violence, the failure to make the diagnosis even after the patient arrives in the emergency department. In a study of battered women presenting to the emergency department, 23% had presented 6 to 10 times previously and 20% had 11 prior emergency department visits.<sup>31</sup> A recent review of patients treated and released from our own emergency department in January 2008 showed 31 women who had medical record documentation of assault and injury, with only two referrals to social services and no referrals to law enforcement for domestic violence. Unfortunately, the experience at our trauma center is not the exception; in one study physicians identified 1 patient in 35 as battered when a medical record review indicated that one in four was likely to have been battered.<sup>21</sup> In 40% of cases with known domestic violence, physicians made no response at all and in 92% of cases, physicians made no referral for the abuse.<sup>32</sup> It is little wonder that in a survey of victims of domestic violence, physicians ranked least effective compared with battered women's shelters, social services, clergy, police, and lawyers.<sup>32</sup>

### Diagnosing Domestic Violence

The obvious signs of abuse (cigarette burns, bruises in various stages of healing, etc.) are uncommon.<sup>12</sup> However, there are some characteristics of injury type and location in domestic violence. Injuries tend to be central; face, head, neck, breast, and abdomen versus more peripheral injuries in accidents. In one study of injury locations, across 10 emergency departments with 280 battered patients, the head, face, neck, thorax, and abdomen was significantly more injured than accident victims ( $p < 0.001$ ).<sup>33</sup> Nontrauma complaints predominate as reasons for physician visit. Even after violent episode, only 23% had injury related complaints. Domestic violence victims rarely volunteer information; only 13% after battering either told staff or were asked about the possibility of abuse.<sup>21</sup> Although they may not be forthcoming about how they were injured, domestic violence victims are not offended when asked about abuse in a nonjudgmental manner.<sup>34</sup> Further, the failure of healthcare providers to ask about domestic violence may be perceived as evidence of a lack of concern and add to feelings of entrapment and helplessness.<sup>35</sup>

1. Have you been kicked, hit, punched or other wise hurt by someone in the past year? If so by whom?
2. Do you feel safe in your current relationship?
3. Is there a partner from a previous relationship who is making you feel unsafe now?

**Fig. 1.** Partner violence screen. (Reprinted with permission from Feldhaus KM, Koziol-McLain J, Amsbury HL, et al. Accuracy of three brief screening questions for detecting partner violence in the emergency department. *JAMA* 1997;277:1357-1361. Copyrighted 1997, American Medical Association)

The use of a specific screening tool for domestic violence has been shown to be more effective than routine social services evaluation.<sup>34</sup> One such tool, the Partner Violence Screen,<sup>36</sup> consists of three questions, takes about 20 seconds to perform and can identify up to 65% to 70% of the victims of domestic violence (Fig. 1).

### Mortality and Domestic Violence

Failure to make the diagnosis of domestic violence and to intervene may have lethal consequences. In a study of female homicide victims, 44% of those with domestic violence related homicide had presented to an emergency department within 2 years of their deaths. They averaged over three visits per victim, with injury documented on at least one encounter in 93%. Domestic violence was documented in only two of these cases and in no case was intervention noted.<sup>37</sup> In a study of victims of intimate partner homicides, 81% had been physically abused in the year before being murdered and 66% had used healthcare in the year before being murdered.<sup>38</sup>

Domestic violence resulting in death is not uncommon. On average more than three women are murdered every day in the United States by husbands or boyfriends.<sup>16</sup> Included in this are the murder-suicides; 74% involve intimate partners with 94% of the offenders being male. Most murder-suicides with three or more victims involved a "family annihilator" killing not only their wives or girlfriends, but their children and other family members as well.<sup>39</sup>

### Long-Term Consequences

Victims of domestic violence have increased use of medical care (primary care visits) and prescription drugs.<sup>21</sup> They are significantly more likely to have somatic complaints (headache, ulcers, irritable bowel syndrome) and hypertension.<sup>12</sup> Additionally, domestic violence victims are prone to depression, posttraumatic stress disorder<sup>5,40,41</sup> and are at increased risk for substance abuse<sup>2,42-44</sup> and suicide.<sup>20,21</sup>

### Media

The view of the media to domestic violence has been bored indifference, occasionally sensational and exploitive



and sometimes even as entertainment value. Most reports of domestic violence appear as blurbs inside the national or local news sections with little or no follow up. Occasional stories of horrific violence spark the sensational interest of the media and are used for a brief period of time.

A comparison between two heinous murders is illustrative. In Jasper, TX on June 7, 1998, Mr. James Byrd Jr., an African American, accepted a ride from three men, one known to him. Instead of giving him a ride home, the men beat him, tied a chain around his waist and dragged him behind a pick up truck. The autopsy suggested he was alive for much of the dragging and died after his arm and head were severed when his body hit a culvert. The assailants dumped his body in the town's black cemetery and went to a barbecue. Since two of the assailants were known members of a white supremacist group, the murder was prosecuted as a hate crime. The trial took place in February 1999; all three were convicted of first degree murder, two were sentenced to death and one to life in prison.<sup>45</sup>

On September 18, 2006, the body of a woman was found in the road in a quiet subdivision, about 20 miles from Denver, CO. She had been dragged behind a vehicle with an orange tow-rope around her neck for more than a mile, leaving a trail of blood and tire marks. The autopsy revealed that she died from fatal head injuries and was strangled as she was dragged. The naked body was so disfigured that fingerprints were used to make the identification. She was identified as Luz Maria Franco-Fierros, an undocumented worker from Mexico, working three jobs to support her family in Chilpancingo. The man she was living with was arrested and charged with murder. The case has not yet come to trial.

A Google search revealed 171,000 stories about Mr. Byrd, a foundation for racial healing has been started in his name, and a movie about the crime appeared on Showtime and a documentary on PBS. The 77th Texas State Legislature passed the James Byrd Jr. Hate Crimes Act on May 11, 2001. A Google search on Ms. Franco-Fierros revealed 468 stories, no made for TV movies, no documentaries, no impassioned condemnation by national civil rights leaders, and no legislation.

Violence portrayed against women is rampant. Television and studio movies include stalking, rape, and murder regularly. A Google search on "movies and rape" had "approximately" 2,610,000 entries, including a web site for "the most brutal FREE real RAPE movies on the net." Movie and television violence does, in fact, desensitize the viewer to violence. One study measured the response of men to films that portrayed violence against women, often in sexual context. After several days viewing, material initially described as violent and degrading to women was considered to be significantly less so. Further, they had less anxiety about the content and enjoyed the material more with increased exposure. The study then measured the response of these men, compared with a no-exposure group, to the victim in a mock-rape trial. Men in the movie group felt that the victim was less injured and had less empathy to rape victims in general

compared with men in the no-exposure group.<sup>46,47</sup> The same effects were observed in women who viewed sexual violence.<sup>48</sup> A longitudinal study of young adults demonstrated that those with childhood high-violence television viewing were significantly more likely to have grabbed, pushed, or shoved their spouses and that the men in this group were three times more likely to be convicted of crimes.<sup>49</sup> To suggest that the entertainment industry has a significant contribution to the issue is perhaps controversial, but not at all far-fetched.

## Action

### Trauma Center Level

Domestic violence has been recognized as an important cause of trauma. The American College of Surgeons has published a statement recognizing the importance of domestic violence as a health care issue.<sup>50</sup> The Eastern Association for the Surgery of Trauma produced a landmark "position paper" about the importance of recognizing domestic violence by trauma care providers.<sup>12</sup> Additional reports about domestic violence have appeared in the surgical literature,<sup>51,52</sup> emphasizing the importance of educating members of the trauma team to recognize domestic violence as a mechanism of injury for trauma patients. Despite this, victims of domestic violence remain under-recognized and unreported.<sup>53</sup> The Eastern Association for the Surgery of Trauma position paper recommended that all female trauma patients be screened for domestic violence in 1999.<sup>12</sup> The logical and necessary continuation of this is to require that a screening tool (such as the Partner Violence Screen<sup>36</sup>) be used as part of the history and physical or tertiary survey at every trauma center. Trauma programs should include compliance in using the screen as part of their performance improvement program. The process must also include referral to appropriate resource—such as the local domestic violence shelter or advocate. The American College of Surgeons Committee on Trauma has recently added "screening and brief intervention" for alcohol to its requirements for trauma centers,<sup>54</sup> victims of domestic violence deserve no less effort on the part of the surgical leadership.

Education programs on domestic violence need to be ongoing and include not only the trauma service but the emergency department personnel as well.

Every trauma program should support their local shelter for domestic violence victims. This may include community outreach, fund raising, financial contributions, and collaboration on injury prevention projects.

## CONCLUSION

Domestic violence is an under-recognized, recurrent part of trauma, present in at least one in five women seeking help in the emergency department. Physicians frequently fail to make the diagnosis. The use of a three question, 20 second tool (Partner Violence Screen) will improve identification of the victims but you have to ASK THE QUESTION. Trauma centers should screen all female trauma patients for domestic

violence using a screening tool and the ACS COT should make screening for domestic violence a requirement for trauma center verification. The continuing medical education program at trauma centers should include on going education on domestic violence for the trauma and emergency medicine services. Trauma centers should support their local shelters and advocate for increased funding.

### Index Case—Revisited

My index case, described in the introduction, is my own mother. She is, in many ways, a classic case of domestic violence. She is a bright, well-educated woman (PhD), from a good family who was a college professor until she retired. She never reported the abuse and in fact denied being beaten on the one occasion she was asked about the possibility of domestic violence in the emergency department (the abuser, her second husband, was present). As previously described, child battering occurs in up to 59% of the homes with wife battering. Unfortunately, our family was not in the other 41%. One of my brothers suffered a nasal fracture from a head-butt and required sutures after a plate was broken over his chin. Other stigmata from abuse, like the shame and humiliation, are not visible but are life-long nonetheless.

### Dedications

The address is dedicated to the victims of domestic violence and specifically to the three most important women in my life; to my mother who was a victim, to my wife who escaped an abusive boyfriend in college, and to my daughter, so that she never is.

### REFERENCES

- Grisso JA, Wishner AR, Schwartz DF, Weene BA, Holmes JH, Sutton RL. A population-based study of injuries in inner-city women. *Am J Epidemiol.* 1991;134:59–86.
- Rosenberg ML, Stark E, Zahn MA. Interpersonal violence: homicide and spouse abuse. In: Last JM, ed. *Maxcy-Rosenan Public Health and Preventive Medicine.* 12th ed. East Norwalk, Conn: Century-Crofts; 1986:1399–1426.
- Council on Judicial and Ethical Affairs, American Medical Association. Physicians and domestic violence: ethical considerations. *JAMA.* 1992;267:3190–3193.
- Harvard Law Review. Developments—Domestic Violence. 1993; 106:1501–1574.
- ACOG. Violence against women fact sheet. Available at: [www.acog.org](http://www.acog.org).
- Flitcraft A. Physicians and domestic violence: challenges for prevention. *Health Aff.* 1993;12:155–161.
- Delahunt EA. Hidden trauma: the mostly missed diagnosis of domestic violence. *Am J Emerg Med.* 1995;13:74–76.
- Davidson T. Wife beating: a recurrent phenomenon through history. In: Roy M, ed. *Battered Women: A Physiological Study of Domestic Violence.* New York, NY: Nostrand Reinhold; 1977.
- US commission on civil rights: under the rule of thumb: battered women and the administration of justice. Washington, DC: Commission on Civil Rights; 1982.
- American medical association diagnostic and treatment guidelines on domestic violence. *Arch Fam Med.* 1992;1:39–47.
- American College of Obstetrics and Gynecologists. Domestic Violence. *Tech Bull.* 1995;209:1–9.
- Sisley A, Jacobs LM, Poole G, Campbell S, Esposito T. Violence in America: a public health crisis—domestic violence. The violence prevention task force of the eastern association for the surgery of trauma. *J Trauma.* 1999;46:1105–1113.
- Flitcraft AH, Hadley SM, Hendricks-Matthews MK, McLeer SV, Warshaw C. American medical association diagnostic and treatment guidelines on domestic violence. *Arch Fam Med.* 1992;1:39–47.
- Anderson RJ, Taliaferro EH. Violence: recognition, management and prevention. *Injury prevention and control. J Emerg Med.* 1998; 16:489–498.
- Barrier PA. Domestic violence. *Mayo Clin Proc.* 1998;73:271–274.
- Rennison CM. US Department of Justice, Bureau of Justice Statistics Crime Data Brief, Intimate partner violence, 1993–2001, February 2003, NCJ 197838.
- Tjaden P, Thoennes N. Prevalence, incidence and consequences of violence against women: findings from the national violence against women survey. Research in brief. Washington, DC and Atlanta, GA: National Institute of Justice and the Centers for Disease Control and Prevention; 1998.
- American Psychological Association. Issues and dilemmas in family violence: report of the American psychological association Presidential task force on violence and the family. Washington, DC: American Psychological Association; 1996.
- National center for injury prevention and control. Costs of intimate partner violence against women in the United States. Atlanta, GA: Centers for Disease Control and Prevention; 2003.
- Silverman JG, Raj A, Clements K. Dating violence and associated sexual risk and pregnancy among adolescent girls in the United States. *Pediatrics.* 2004;114:e220–e225.
- 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.
- Abbot J, Johnson R, Koziol-McLain J, Lowenstein SR. Domestic violence against women: incidence and prevalence in an emergency department population. *JAMA.* 1995;273:1763–1767.
- Ross SM. Risk of spousal abuse to children of spouse abusing parents. *Child Abuse Negl.* 1996;20:589–598.
- McKibben L, DeVoss E, Newberger E. Victimization of mothers of abused children; a controlled study. *Pediatrics.* 1989;4:531–535.
- Strauss MA, Gelles RJ. How violent are American families? Estimates from the national family violence resurvey and other studies. In: Strauss MA, Gelles RJ, eds. *Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8145 Families.* New Brunswick, NJ: Transaction; 1990.
- Gazmararian JA, Lazorick S, Spitz AM, Ballard TJ, Saltzman LE, Marks JS. Prevalence of violence against pregnant women. *JAMA.* 1996;275:1915–1920.
- Gazmararian JA, Petersen R, Spitz AM, Goodwin MM, Saltzman LE, Marks JS. Violence and reproductive health: current knowledge and future research directions. *Matern Child Health J.* 2000;4:79–84.
- Walker LE. *The Battered Woman Syndrome.* New York: Springer Publishing Co; 1984.
- Ascione FR, Weber CV, Thompson TM, Heathy J, Maruyama M, Hayashi K. Battered pets and domestic violence: animal abuse reported by women experiencing intimate violence and by nonabused women. *Violence Against Women.* 2007;13:354–373.
- Sev'er A. Recent or imminent separation and intimate violence against women. A conceptual overview and some Canadian examples. *Violence Against Women.* 1997;3:566–89.
- 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: Monograph 7.
- Bowker LH, Maurer L. The medical treatment of battered wives. *Women Health.* 1987;12:25–45.

33. Muelleman RL, Lenaghan PA, Pakieser RA. Battered Women: injury locations and types. *Ann Emerg Med.* 1996;28:486–492.
34. Norton LB, Peipert JF, Zierler S, Lima B, Hume L. Battering in pregnancy an assessment of two screening methods. *Obstet Gynecol.* 1995;85:321–325.
35. Council on Scientific Affairs, American Medical Association. Violence against women, relevance for medical practitioners. *JAMA.* 1992;267: 3184–3189.
36. Feldhaus KM, Koziol-McLain J, Amsbury HL, Norton IM, Lowenstein SR, Abbott JT. Accuracy of three brief screening questions for detecting partner violence in the emergency department. *JAMA.* 1997;277:1357–1361.
37. Wadman MC, Muelleman RL. Domestic violence-related homicide: emergency department use before victimization. *Am J Emerg Med.* 1999;17:698–691.
38. Sharps PW, Koziol-McLain J, Campbell J, McFarlane J, Sachs C, Xu X. Health care providers missed opportunities for preventing femicide. *Prev Med.* 2001;33:373–380.
39. Violence Policy Center (VPC), American Roulette: Murder suicide in the United States, April 2006.
40. Cascardi M, O’Leary KD, Schlee KA. Co-occurrence and correlates of post-traumatic stress disorder and major depression in physically abused women. *J Fam Violence.* 1999;14:21–40.
41. Campbell R, Sullivan CM, Davidson WS. Women who use domestic violence shelters: changes in depression over time. *Psych Women Q.* 1995;19:237–255.
42. Weinsheimer RL, Schermer CR, Malcoe LH, Balduf LM, Bloomfield LA. Severe intimate partner violence and alcohol use among female trauma patients. *J Trauma.* 2005;58:22–29.
43. Lipsky S, Caetano R, Field CA, Larkin GL. Is there a relationship between victim and partner alcohol use during an intimate partner violence event? Findings from an urban emergency department study of abused women. *J Stud Alcohol.* 2005;66:407–412.
44. Swanson SM, Sise CB, Sise MJ, Sack DI, Holbrook TL, Paci GM. The scourge of methamphetamine: impact on a level I trauma center. *J Trauma.* 2007;63:531–537.
45. Available at: <http://www.cnn.com/US/9902/22/dragging.death.03/>.
46. Linz D, Donnerstein E, Penrod S. The effects of multiple exposures to violent and sexually degrading depictions of women. *J Commun.* 1984;34:130–147.
47. Linz D, Donnerstein E, Penrod S. Effects of long-term exposure to violent and sexually degrading depictions of women. *J Pers Soc Psychol.* 1988;55:758–768.
48. Krafka C, Linz D, Donnerstein E, Penrod S. Women’s reactions to sexually aggressive mass media depictions. *Violence Against Women.* 1997;3:149–181.
49. Huesman LR, Moise-Titus J, Podolski C, Eron LD. Longitudinal relations between children’s exposure to TV violence and their aggressive and violent behavior in young adulthood: 1977–1992. *Dev Psychol.* 2003;39:201–221.
50. Statement on Domestic Violence. *Bull Am Coll Surg.* 2000;85:26.
51. Guth AA, Pachter HL. Domestic violence and the trauma surgeon. *Am J Surg.* 2000;179:134–140.
52. Davis JW, Kaups KL, Campbell SD, Parks SN. Domestic violence and the trauma surgeon: results of a study on knowledge and education. *J Am Coll Surg.* 2000;191:347–353.
53. Davis JW, Parks SN, Kaups KL. Victims of domestic violence on the trauma service unrecognized and reported. *J Trauma.* 2003;54:352–355.
54. American College of Surgeons Committee on Trauma. Prevention. *Resources for Optimal Care of the Injured Patient.* Chicago: American College of Surgeons; 2006.