

References

- Hoge CW, Auchterlonie JL, Milliken CS. Mental health problems, use of mental health services, and attrition from military service after returning from deployment to Iraq or Afghanistan. *JAMA*. 2006;295:1023–1032.
- Kang HK, Hyams KC. Mental health care needs among recent war veterans. *N Engl J Med*. 2005;352:1289.
- Milliken CS, Auchterlonie JL, Hoge CW. Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. *JAMA*. 2007;298:2141–2148.
- Seal KH, Metzler TJ, Gima KS, Bertenthal D, Maguen S, Marmar CR. Trends and risk factors for mental health diagnoses among Iraq and Afghanistan veterans using Department of Veterans Affairs health care, 2002–2008. *Am J Public Health*. 2009;99:1651–1658.
- Kimerling R, Gima K, Smith MW, Street A, Frayne S. The Veterans Health Administration and military sexual trauma. *Am J Public Health*. 2007;97:2160–2166.
- Hankin CS, Skinner KM, Sullivan LM, Miller DR, Frayne S, Tripp TJ. Prevalence of depressive and alcohol abuse symptoms among women VA outpatients who report experiencing sexual assault while in the military. *J Trauma Stress*. 1999;12:601–612.
- Murdoch M, Nichol KL. Women veterans' experiences with domestic violence and with sexual harassment while in the military. *Arch Fam Med*. 1995;4:411–418.
- Magley VJ, Waldo CR, Drasgow F, Fitzgerald LF. The impact of sexual harassment on military personnel: is it the same for men and women? *Mil Psychol*. 1999;11:283–302.
- Ouimette PC, Kimerling R, Shaw J, Moos RH. Physical and sexual abuse among women and men with substance use disorders. *Alcohol Treat Q*. 2000;18(3):7–17.
- Ullman SE, Brecklin LR. Sexual assault history and suicidal behavior in a national sample of women. *Suicide Life Threat Behav*. 2002;32:117–130.
- Golding JM. Sexual assault history and limitations in physical functioning in two general population samples. *Res Nurs Health*. 1996;19:33–44.
- Golding JM. Sexual-assault history and long-term physical health problems: evidence from clinical and population epidemiology. *Curr Dir Psychol Sci*. 1999;8:191–194.
- Schneider KT, Swan S, Fitzgerald LF. Job-related and psychological effects of sexual harassment in the workplace: empirical evidence from two organizations. *J Appl Psychol*. 1997;82:401–415.
- Kang H. *Analysis of Health Care Utilization Among US Global War on Terrorism Veterans*. Washington, DC: Department of Veterans Affairs, Veterans Health Administration; 2007.
- Skinner KM, Kressin N, Frayne S, et al. The prevalence of military sexual assault among female Veterans' Administration outpatients. *J Interpers Violence*. 2000;15:291–310.
- Wolfe J, Sharkansky EJ, Read JP, Dawson R, Martin JA, Ouimette PC. Sexual harassment and assault as predictors of PTSD symptomatology among U.S. female Persian Gulf War military personnel. *J Interpers Violence*. 1998;13:40–57.
- International Classification of Diseases, Ninth Revision*. Geneva, Switzerland: World Health Organization; 1980.
- Corbett S. The women's war. *New York Times*. March 18, 2007;sect 42.
- Lee C. More sex assaults in military reported: new policy ensures victims' privacy. *Washington Post*. 2006:A21.
- Hansen C. Prepared statement of Christine Hansen, Executive Director, The Miles Foundation Personnel Subcommittee, Senate Armed Services Committee, February 25, 2004.
- Seal KH, Bertenthal D, Miner CR, Sen S, Marmar C. Bringing the war back home: mental health disorders among 103,788 US veterans returning from Iraq and Afghanistan seen at Department of Veterans Affairs facilities. *Arch Intern Med*. 2007;167:476–482.
- Frayne SM. Clinical challenges in primary care of women with prior sexual trauma. *Federal Practitioner*. 1998;15(5S):3–5.
- Suris AM, Lind L, Kashner TM, Borman PD. Mental health quality of life, and health functioning in women veterans: differential outcomes associated with military and civilian sexual assault. *J Interpers Violence*. 2007;22:179–197.
- Pérez-Stable EJ, Miranda J, Muñoz RF, Ying YW. Depression in medical outpatients: underrecognition and misdiagnosis. *Arch Intern Med*. 1990;150:1083–1088.
- Leibowitz RQ, Jeffreys MD, Copeland LA, Noel PH. Veterans' disclosure of trauma to healthcare providers. *Gen Hosp Psychiatry*. 2008;30:100–103.
- Campbell R, Raja S. The sexual assault and secondary victimization of female veterans: help-seeking experiences with military and civilian social systems. *Psychol Women Q*. 2005;29:97–106.
- Magruder KM, Yeager DE. Patient factors relating to detection of posttraumatic stress disorder in Department of Veterans Affairs primary care settings. *J Rehabil Res Dev*. 2008;45:371–382.
- Ullman SE. Correlates and consequences of adult sexual assault disclosure. *J Interpers Violence*. 1996;11:554–571.
- Tanielian T, Jaycox LH, Schell TL, et al. *Invisible Wounds of War: Summary and Recommendations for Addressing Psychological and Cognitive Injuries*. Santa Monica, CA: RAND Center for Military Health Policy Research; 2008.

Prevalence of Intimate Partner Violence Among an Abortion Clinic Population

Audrey F. Saftlas, PhD, MPH, Anne B. Wallis, PhD, Tara Shochet, PhD, MPH, Karisa K. Harland, MPH, Penny Dickey, BS, and Corinne Peek-Asa, PhD

In this cross-sectional, clinic-based study, we estimated 1-year prevalence of intimate partner violence among 986 patients who had elective abortions. We assessed physical, sexual, and battering intimate partner violence via self-administered, computer-based questionnaires. Overall, physical and sexual intimate partner violence prevalence was 9.9% and 2.5%, respectively; 8.4% of those in a current relationship reported battering. Former partners perpetrated more physical and sexual assaults than did current partners. Violence severity increased with frequency. Abortion patients experience high intimate partner violence rates, indicating the need for targeted screening and community-based referral. (*Am J Public Health*. 2010;100:1412–1415. doi:10.2105/AJPH.2009.178947)

Intimate partner violence has far-reaching, adverse consequences for women, children, and families.^{1–5} In live birth populations, women with unintended pregnancies reported higher intimate partner violence rates than did those with planned conceptions.^{6–9} Women seeking abortion may be an important target population for intervention because a small but growing body of research suggests that intimate partner violence prevalence is higher among abortion patients than among women who continue their pregnancies.^{10–15} Most studies, however, have been limited by small sample sizes and failure to measure nonphysical abuse.

METHODS

We conducted this cross-sectional study from November 1, 2007, through July 18, 2008, within a large family planning clinic that provides aspiration and medication abortion. Eligibility criteria included attendance for elective abortion, age 18 years or older, Iowa residency, and English or Spanish proficiency. Following clinic intake, education staff introduced the study to eligible patients in a private room. Participants who provided informed, voluntary consent completed a 10-minute

TABLE 1—Number and Prevalence Rate per 100 (PR) of Any Physical or Sexual Abuse and Intimate Partner Violence, by Partner Status and Perpetrator: Participants Seeking Induced Abortion at a Women’s Health Clinic, November 2007–July 2008^a

Partner Status of Participants and IPV Perpetrators ^{a,b}	Any Physical Abuse, No. or No. (PR)	Any Sexual Abuse, No. or No. (PR)	Physical or Sexual Abuse, No. or No. (PR)
All women	972	972	979
Any perpetrator	112 (11.5)	46 (4.7)	135 (13.8)
Current partner	26 (2.7)	5 (0.5)	27 (2.8)
Former partner	71 (7.3)	20 (2.1)	81 (8.3)
Other family member	4 (0.4)	0 (0.0)	4 (0.4)
Person known to you	7 (0.7)	11 (1.1)	17 (1.7)
Stranger	8 (0.8)	10 (1.0)	15 (1.5)
Other	2 (0.2)	5 (0.5)	7 (0.7)
Intimate partner violence ^c	96 (9.9)	24 (2.5)	106 (10.8)
Women with a current partner	704	709	711
Any perpetrator	72 (10.2)	27 (3.8)	85 (12.0)
Current partner	26 (3.7)	5 (0.7)	27 (3.8)
Former partner	36 (5.1)	7 (1.0)	41 (5.8)
Other family member	2 (0.3)	0 (0.0)	2 (0.3)
Person known to you	5 (0.7)	10 (1.4)	14 (2.0)
Stranger	5 (0.7)	8 (1.1)	10 (1.4)
Other	1 (0.1)	2 (0.3)	3 (0.4)
Intimate partner violence ^c	61 (8.7)	11 (1.6)	66 (9.3)
Women with no current partner	251	245	250
Any perpetrator	40 (15.9)	19 (7.8)	50 (20.0)
Former partner	35 (13.9)	13 (5.3)	40 (16.0)
Other family member	2 (0.8)	0 (0.0)	2 (0.8)
Person known to you	2 (0.8)	1 (0.4)	3 (1.2)
Stranger	1 (0.4)	2 (0.8)	5 (2.0)
Other	1 (0.4)	3 (1.2)	4 (1.6)
Intimate partner violence ^c	35 (13.9)	13 (5.3)	40 (16.0)

Note. IPV = intimate partner violence. Participants with missing data for physical abuse or sexual abuse were excluded.

^aPartner status could not be determined for 19 women.

^bSome participants reported multiple perpetrators.

^cBy current or former partner.

anonymous, self-administered, computer-based questionnaire (English or Spanish) to estimate the 12-month prevalence of physical, sexual, and battering abuse.¹⁶ This study was approved by University of Iowa’s institutional review board.

Physical and sexual abuse were measured with a modified abuse assessment screening tool.¹⁷ Frequency of physical abuse and self-appraisal of injury severity were ascertained. Battering (chronic nonphysical abuse characterized by controlling behaviors and abuse of power) was measured with the Women’s Experience With Battering Scale.^{18,19}

The response rate was calculated as the number of women who completed the questionnaire divided by the total eligible; the cooperation rate was calculated as the number of women who completed the questionnaire divided by the eligible women invited to participate.²⁰ We used the Wilcoxon rank sum test to examine associations between the frequency of physical abuse and injury severity for trend across ordered groups.^{21,22}

RESULTS

Of the 1415 abortion clients seen in the clinic, 1193 were eligible, 1108 were invited

to participate, 990 consented, and 986 completed the questionnaire. Participation and cooperation rates were high: 82.6% (986 of 1193) and 89.0% (986 of 1108), respectively.

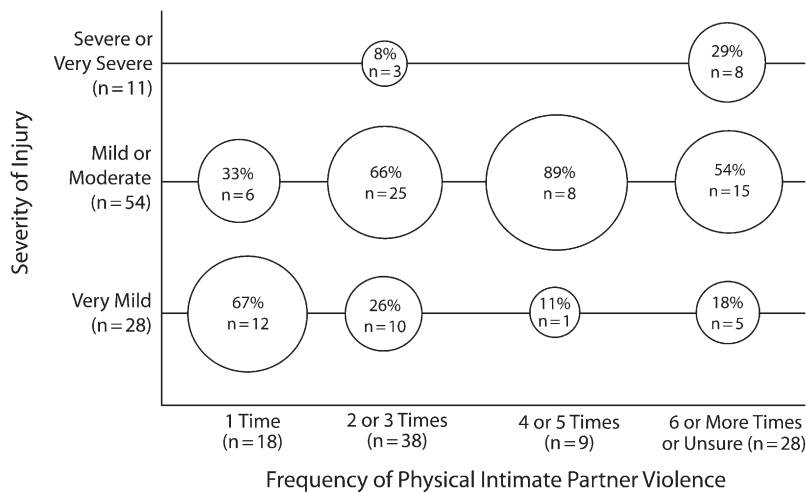
Analysis of the clinic’s administrative database confirmed that participants and eligible patients had similar sociodemographic characteristics. The average participant was 25.7 years old. Most were White (10.6% were Black; 8.4% were Latina); were well-educated (some college or more: 66.9%); were employed (72.0%); and had public or private health insurance (64.7%).

One-year prevalence rates of physical and sexual abuse were analyzed by relationship status (Table 1). Among all participants, 11.5% reported being physically hurt by anyone in the past year; 10.0% identified a current or former partner as the perpetrator. The prevalence of sexual abuse by anyone was 4.7% compared with 2.5% for sexual intimate partner violence. Of the 96 women who reported intimate partner violence, 71 (74%) identified a former partner as the perpetrator, whereas 26 (27%) identified the current partner as the perpetrator. The combined prevalence of any physical or sexual abuse was 13.8% versus 10.8% for physical or sexual intimate partner violence.

The minority of respondents (26%) not in an intimate relationship at the time of recruitment reported the highest prevalence of physical or sexual intimate partner violence (16.0%) and any physical or sexual abuse (20.0%).

Severity of physical abuse increased incrementally and significantly with the frequency of reported incidents in the past 12 months (Figure 1). Nearly a third of physically abused women reported 6 or more assaults or were unsure of the number (28 of 93). Of the participants who reported on the severity of physical abuse, 58% (n=54) reported the abuse as mild or moderate, and 12% (n=11) reported the abuse as severe or very severe.

Battering was assessed among women with a current partner (with exclusive reference to that partner): 8.4% (n=60) screened positive on the Women’s Experience With Battering Scale. Of these, 58.3% (n=35) reported battering alone, with no other types of intimate partner violence; 23.3% (n=14) also reported physical intimate partner violence; 6.7% (n=4) reported all 3 types of intimate partner



Note. Nonparametric test for trend across ordered groups: $z=3.35$; $P<.001$.

FIGURE 1—Frequency of physical abuse by an intimate partner in past 12 months and self-reported injury severity among participants seeking induced abortion at a women's health clinic: November 2007–July 2008.

violence; and 11.7% ($n=7$) skipped questions about physical or sexual abuse.

DISCUSSION

Abortion patients had high 12-month prevalence rates of physical and sexual intimate partner violence and abuse by anyone. Former partners perpetrated more assaults than did current partners, suggesting that many women had dissolved their intimate relationship with the abusive partner by the time of enrollment—an observation consistent with findings from a South Carolina study of family practice patients.²³

Our estimated prevalence of physical intimate partner violence was consistent with rates from similar clinic populations¹⁵ but considerably higher than the nationally estimated prevalence of 3.7% among US women who continue their pregnancies.²⁴ These data suggest that women in violent relationships are more likely to seek abortion services.

Few studies have examined the frequency and severity of physical violence.²⁵ We found that injury severity increased with reported frequency of assaults rather than a pattern of infrequent but very severe abusive events. To our knowledge, ours was the first US study to comprehensively evaluate battering among

abortion clients, with 8.4% reporting battering by their current partner.

Methodological strengths included a high participation rate and sample size; use of validated intimate partner violence instruments to screen for 3 intimate partner violence subtypes; and anonymous, computer-based questionnaires to encourage honest reporting.^{26,27} We did not assess battering by former partners, bidirectional abuse, duration of abuse, or reasons for abortion.

In summary, abortion patients experienced high rates of intimate partner violence, indicating the need for intimate partner violence screening followed by community-based referrals and interventions.

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Contributors

A. F. Saftlas originated, contributed to, and oversaw all aspects of the study. A. B. Wallis contributed to the analysis, interpretation, writing, and revision of the manuscript. T. Shochet supervised the data collection and contributed to the analysis, interpretation, and writing of the manuscript. K. K. Harland contributed to the data analysis and revision of the manuscript. P. Dickey facilitated the clinic-based field operations. C. Peek-Asa contributed to all aspects of the study from its inception. All authors helped to conceptualize ideas, interpret findings, and review drafts of the manuscript.

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Human Participant Protection

This study was approved by the University of Iowa's institutional review board.

References

- Campbell JC. Health consequences of intimate partner violence. *Lancet*. 2002;359(9314):1331–1336.
- Coker AL, Smith PH, Fadden MK. Intimate partner violence and disabilities among women attending family practice clinics. *J Womens Health (Larchmt)*. 2005;14:829–838.
- Plichta SB. Intimate partner violence and physical health consequences: policy and practice implications. *J Interpers Violence*. 2004;19:1296–1323.
- Hillis SD, Anda RF, Dube SR, Felitti VJ, Marchbanks PA, Marks JS. The association between adverse childhood experiences and adolescent pregnancy, long-term psychosocial consequences, and fetal death. *Pediatrics*. 2004;113:320–327.
- Peek-Asa C, Maxwell L, Stromquist A, Whitten P, Limbos MA, Merchant J. Does parental physical violence reduce children's standardized test score performance? *Ann Epidemiol*. 2007;17:847–853.
- Castro R, Peek-Asa C, Garcia L, Ruiz A, Kraus JF. Risks for abuse against pregnant Hispanic women: Morelos, Mexico and Los Angeles County, California. *Am J Prev Med*. 2003;25:325–332.
- Castro R, Peek-Asa C, Ruiz A. Violence against women in Mexico: a study of abuse before and during pregnancy. *Am J Public Health*. 2003;93:1110–1116.
- Cripe SM, Sanchez SE, Perales MT, Lam N, Garcia P, Williams MA. Association of intimate partner physical and sexual violence with unintended pregnancy among pregnant women in Peru. *Int J Gynaecol Obstet*. 2008;100:104–108.
- Pallitto CC, Campbell JC, O'Campo P. Is intimate partner violence associated with unintended pregnancy? A review of the literature. *Trauma Violence Abuse*. 2005;6:217–235.

Male Perpetration of Intimate Partner Violence and Involvement in Abortions and Abortion-Related Conflict

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Men aged 18 to 35 years (n = 1318) completed assessments of perpetration of intimate partner violence (IPV), abortion involvement, and conflict regarding decisions to seek abortion. IPV was associated with greater involvement by men in pregnancies ending in abortion and greater conflict regarding decisions to seek abortion. IPV should be considered within family planning and abortion services; policies requiring women to notify or obtain consent of partners before seeking an abortion should be reconsidered; they may facilitate endangerment and coercion regarding such decisions. (*Am J Public Health*. 2010;100:1415–1417. doi:10.2105/AJPH.2009.173393)

Intimate partner violence (IPV) is a major public health issue that affects the lives and health of approximately 20% to 25% of adolescent and adult US women,^{1,2} with women of reproductive age at greatest risk.^{3,4} Major reproductive health concerns associated with experiences of IPV include unintended⁵ and rapid repeat pregnancies.^{6–8} Given that unintended and unwanted pregnancies are the primary reason for seeking abortion,^{7,9} abused women are thought to be more likely to experience abortion than are their nonabused counterparts.^{10–12} Recent qualitative research suggests there is a broad role played by abusive male partners in controlling women's reproductive health,^{13–15} including attempts to control abortion-related decisions.^{13,15} However, quantitative

data on this issue have primarily been collected from women attending abortion services, which therefore precludes comparisons to women with no abortion history.^{10–12} Given the increasing recognition of the role of male partners in controlling a woman's reproductive health and decision-making, coupled with the continuing public debate concerning both women's access to abortion and the role of family members in decisions regarding abortion (e.g., spousal consent),¹⁶ it is critical to understand to what extent abuse from male partners may relate to both women's seeking abortion and coercion regarding abortion-related decisions. We examined the association of young adult men's reports of perpetration of IPV and their participation in pregnancies ending in abortion as well as conflict surrounding abortion-related decisions.

METHODS

English-, Spanish-, or Portuguese-speaking men between the ages of 18 and 35 years were recruited from 3 large community health centers located in lower-income, urban, Boston-area neighborhoods. The participants completed a computer-based anonymous survey and received a \$20 gift card and a list of local resources upon completion. The participation rate of men approached for inclusion was 65%; our sample was limited to participating men who reported ever having had sex (n = 1318).

Lifetime history of perpetration of physical and sexual IPV was assessed by use of modified versions of the Conflict Tactics Scale¹⁷ and the Sexual Experiences Survey.¹⁸ Abortion involvement was assessed by a single item, "How many pregnancies that you have been involved in have resulted in abortion?"; responses were coded to reflect involvement in no abortions, 1 or 2 abortions, or 3 or more abortions. Conflict over abortion was assessed via a single item on the basis of our previous qualitative study: "Sometimes couples fight over what to do about a pregnancy. Have you and your girlfriends/sex partners/wife ever fought about a pregnancy?" Positive responses included "Yes, we fought because I wanted her to have the baby and she wanted an abortion" and "Yes, we fought because I wanted an abortion and she wanted to have the baby." Prevalence estimates were

10. Taft AJ, Watson LF. Termination of pregnancy: associations with partner violence and other factors in a national cohort of young Australian women. *Aust N Z J Public Health*. 2007;31:135–142.
11. Bourassa D, Berube J. The prevalence of intimate partner violence among women and teenagers seeking abortion compared with those continuing pregnancy. *J Obstet Gynaecol Can*. 2007;29:415–423.
12. Evins G, Chescheir N. Prevalence of domestic violence among women seeking abortion services. *Womens Health Issues*. 1996;6:204–210.
13. Glander SS, Moore ML, Michielutte R, Parsons LH. The prevalence of domestic violence among women seeking abortion. *Obstet Gynecol*. 1998;91:1002–1006.
14. Lumsden GM. Partner abuse prevalence and abortion. *Can J Womens Health Care Phys Addressing Womens Health Issues*. 1997;8(1):[13] p.
15. Woo J, Fine P, Goetzl L. Abortion disclosure and the association with domestic violence. *Obstet Gynecol*. 2005;105:1329–1334.
16. *WebSurveyor*. Herndon, VA: WebSurveyor Corp; 2006.
17. McFarlane J, Parker B, Soeken K, Bullock L. Assessing for abuse during pregnancy: severity and frequency of injuries and associated entry into prenatal care. *JAMA*. 1992;267:3176–3178.
18. Smith PH, Earp JA, DeVellis R. Measuring battering: development of the Women's Experience With Battering (WEB) Scale. *Womens Health*. 1995;1:273–288.
19. Coker AL, Smith PH, McKeown RE, King MJ. Frequency and correlates of intimate partner violence by type: physical, sexual, and psychological battering. *Am J Public Health*. 2000;90:553–559.
20. Slattery ML, Edwards SL, Caan BJ, Kerber RA, Potter JD. Response rates among control subjects in case-control studies. *Ann Epidemiol*. 1995;5:245–249.
21. Wilcoxon F. Individual comparisons by ranking methods. *Biometrics*. 1945;1:80–83.
22. StataCorp. *Stata Statistical Software: Release 10*. College Station, TX: StataCorp LP; 2007.
23. Coker AL, Derrick C, Lumpkin JL, Aldrich TE, Oldendick R. Help-seeking for intimate partner violence and forced sex in South Carolina. *Am J Prev Med*. 2000;19:316–320.
24. Silverman JG, Decker MR, Reed E, Raj A. Intimate partner violence victimization prior to and during pregnancy among women residing in 26 U.S. states: associations with maternal and child health. *Am J Obstet Gynecol*. 2006;195:140–148.
25. Whitaker DJ, Haileyesus T, Swahn M, Saltzman LS. Differences in frequency of violence and reported injury between relationships with reciprocal and non-reciprocal intimate partner violence. *Am J Public Health*. 2007;97:941–947.
26. MacMillan HL, Wathen CN, Jamieson E, et al. Approaches to screening for intimate partner violence in health care settings: a randomized trial. *JAMA*. 2006;296:530–536.
27. Mears M, Coonrod DV, Bay RC, Mills TE, Watkins MC. Routine history as compared to audio computer-assisted self-interview for prenatal care history taking. *J Reprod Med*. 2005;50:701–706.