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Prospective Association of Intimate Partner Violence with Receipt of Clinical Preventive Services in Women of Reproductive Age

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A B S T R A C T

Background: Women who experience intimate partner violence (IPV) have a greater risk for adverse health outcomes, suggesting the importance of preventive services in this group. Little prior research has explored how IPV exposure impacts receipt of relevant preventive services. We assess the prospective association of IPV exposure with receiving specific preventive services.

Methods: Women in the Central Pennsylvania Women's Health Study's longitudinal cohort study (conducted 2004–2007; $n = 1{,}420$) identified past-year exposure to IPV at baseline and receipt of IPV-relevant preventive services (counseling for safety and violence concerns, tests for sexually transmitted infections [STIs], counseling for STIs, Pap testing, counseling for smoking/tobacco use, alcohol/drug use, and birth control) at 2-year follow-up. Multiple logistic regression analysis assessed the impact of IPV on service receipt, controlling for relevant covariates.

Findings: Women exposed to IPV had greater odds of receiving safety and violence counseling (adjusted odds ratio [AOR], 2.40; 95% confidence interval [CI], 1.25–4.61), and tests for STIs (AOR, 2.46; 95% CI, 1.41–4.28) compared with women who had not been exposed to IPV. Independent of other predictors, including IPV, women who saw an obstetrician-gynecologist were more likely to receive Pap tests, STI/HIV testing and counseling, and birth control counseling, compared with women who had not seen an obstetrician-gynecologist.

Conclusion: Overall rates of preventive service receipt for all women in the sample were low. Women exposed to IPV were more likely to receive safety and violence counseling and STI testing, and seeing an obstetrician-gynecologist increased the odds of receiving several preventive services.

Introduction

Intimate partner violence (IPV), defined as emotional, physical, and sexual abuse that occurs between people in a close relationship (U.S. Centers for Disease Control & Prevention, 2006), affects approximately 20% to 36% of U.S. women at some point during their lives (Black et al., 2011; Tjaden & Thoennes, 1998; Tjaden & Thoennes, 2000) and is identified by the Institute of Medicine (IOM) as a major social factor affecting the health of U.S. women (IOM, 2010). In addition to increased risk of physical injury and death, survivors of IPV experience substantial physical comorbidities, such as chronic headaches, gastrointestinal complaints, and gynecological problems (Breiding, Black, & Ryan, 2008; Campbell et al., 2002), as well as significant mental health disturbances including mood and anxiety disorders (Bonomi, Anderson, Rivara, & Thompson, 2007; Porcerelli et al., 2003). IPV is also associated with increased risk for numerous reproductive health problems including sexually transmitted infections (STIs; Campbell et al., 2002), cervical cancer (Coker, Hopenhayn, DeSimone, Bush, & Crofford, 2009; Coker, Sanderson, Fadden, & Pirisi, 2000), and unintended pregnancy (Pallitto, Campbell, & O'Campo, 2005). Unhealthy behaviors such as use of tobacco and illicit drugs (Breiding et al., 2008; Gerber, Ganz, Lichter, Williams, & McCloskey, 2005) are increased among women exposed to IPV. IPV exposure also is a risk factor for IPV revictimization (Lindhorst & Beadnell, 2011), suggesting the need for preventive services related to exposure. These increased risks suggest that healthcare for women exposed to IPV should emphasize prevention, including counseling for safety and violence

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prevention, adverse health behaviors, and reproductive health risks, in this population.

Women exposed to IPV are known to have higher rates of overall healthcare use and healthcare costs (Rivara et al., 2007; Ulrich et al., 2003) than women not exposed to IPV. These findings occur across all categories of services—primary and preventive, urgent care, emergency care, and specialty care. As such, IPV-exposed women are frequently in contact with the healthcare system. However, accessing the healthcare system frequently does not necessarily mean receiving recommended clinical preventive services. Moreover, current literature inadequately describes preventive healthcare utilization among women exposed to IPV. Prior work examining IPV and prevention is limited by cross-sectional (Cronholm & Bowman, 2009; Lemon, Verhoek-Oftedahl, & Donnelly, 2002) or retrospective (Gandhi et al., 2010) study designs, examination of relatively few preventive services (Gandhi et al., 2010; Lemon et al., 2002; Loxton, Powers, Schofield, Hussain, & Hosking, 2009), or focus on women beyond reproductive age (Loxton et al., 2009) for whom IPV is less prevalent (McCauley et al., 1995). A few studies suggest that women exposed to IPV are less likely to receive clinical preventive services than the general population; for example, women with self-reported safety concerns in their relationships were less likely to report receiving cervical cancer screening within the past 12 months (Cronholm & Bowman, 2009).

The behavioral model of health services utilization (Andersen, 1995) is a framework for examining sociodemographic variables that predict use of clinical preventive services. In this model, individual-level determinants of health services utilization are categorized as predisposing, enabling, and need variables. Prior research has shown such factors as race/ethnicity, income level, and education predispose individuals to receive preventive healthcare services (McCall-Hosenfeld, Weisman, Camacho, Hillemeier, & Chuang, 2012). In the context of IPV, women exposed to IPV were less likely to utilize mental health services if they were Black or Latina compared with White women (Ahmed & McCaw, 2010; Flicker et al., 2011). Likewise, minorities may prefer informal help seeking (Ahmed & McCaw, 2010) for IPV-related care rather than seek formal services. Having access to both general practitioners and gynecologic healthcare providers enables women to access preventive healthcare services (Henderson, Weisman, & Grason, 2002). Likewise, adequate health insurance enables women to access preventive services (McCall-Hosenfeld et al., 2012) because out-of-pocket costs are lower than for those without health insurance. Need for preventive services is defined by clinical guidelines and can be elevated in the presence of specific risks. For example, need for preventive IPV-related services is elevated among women displaying specific physical and mental health concerns that are known to be associated with IPV (Wathen & MacMillan, 2012).

Psychosocial and sociodemographic factors can also explain why women exposed to IPV may not receive the clinical preventive services that they need in spite of accessing the healthcare system more often. Low-self-esteem, increased mental distress (Leiferman & Pheley, 2006; Thorpe, Kalinowski, Patterson, & Sleath, 2006) and decreased self-efficacy (Grembowski et al., 1993) among women exposed to IPV may result in poor self-care habits, and thus inattention to preventive healthcare services. IPV-exposed women may not seek IPV-related care if they perceive their victimization is too minor or if they do not believe that help is readily available (Du Mont, Forte, Cohen, Hyman, & Romans, 2005). Women of higher socioeconomic status may not identify their experience as abuse, perceiving abuse as an issue affiliated with lower classes (Flicker et al., 2011). In addition, clinicians may focus on somatic complaints among women with IPV, rather than preventive services, which would result in relatively less preventive service utilization despite higher overall healthcare use. Abusive partners may prevent women from accessing health services (McCloskey et al., 2007), including preventive services. Lack of detection of IPV by clinicians (Gutmanis, Beynon, Tutty, Wathen, & MacMillan, 2007) reduces targeting of preventive services to this high-risk population.

Using data from a population-based, prospective, cohort study, we investigated receipt of clinical preventive services for women with IPV compared with women not exposed to IPV. We investigate whether recent exposure to IPV at baseline predicts receipt of specific clinical preventive services during a 2-year follow-up period.

Methods

Sample

Data are from the Central Pennsylvania Women's Health Study, a longitudinal survey of a population-based sample of women ages 18 to 45 residing in a 28-county region of Central Pennsylvania. The region was chosen for its socioeconomic as well as its geographic diversity, including urban, rural, and semi-rural locations (Weisman et al., 2009). Baseline interviews were conducted in 2004 and 2005 via a random-digit-dial telephone survey of 2,002 English- or Spanish-speaking women. The purpose of this baseline survey was to provide estimates of the prevalence of risk factors for adverse pregnancy outcomes, and included detailed information about preventive health, healthcare access and exposure to risks including IPV. The details of the sampling design, survey implementation, and response rate have been previously published (Weisman et al., 2006). The baseline sample was highly representative of the target population on key demographics including age, race/ethnicity, educational level, and poverty status. At the end of the interview, 90% of the sample consented to follow-up contact (Weisman et al., 2009). At the 24-month follow-up, 1,420 participants completed a follow-up telephone interview, for a response rate of 79% among those consenting to follow-up (Weisman et al., 2009). The main reason for nonresponse was failure to locate women who had changed residence (Weisman et al., 2009). In the follow-up survey, response bias was noted in the expected direction: Participants who completed the follow-up interview were more likely to be older, have higher educational attainment and socioeconomic status, be married or cohabitating, and be non-Hispanic White (Weisman et al., 2009). Loss to follow-up was significantly more likely among women exposed to IPV ($p < .01$) compared with those not exposed to IPV at baseline. The study was approved by the Pennsylvania State University College of Medicine Institutional Review Board; a Certificate of Confidentiality was obtained from the National Institutes of Health.

Independent Variable

Recent IPV exposure was assessed at baseline. IPV was measured using an eight-item scale from the 1998 Commonwealth Fund Survey of Women's Health (Collins et al., 1999). After a framing statement, "Domestic violence affects many women's lives," women were asked, "In the past 12 months, has a spouse, partner, or boyfriend: "Threatened to hit you or throw