

Detection of Intimate Partner Violence in a General Medicine Practice

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In this study, an assessment phase is undertaken to determine intimate partner violence (IPV) prevalence. An anonymous survey is followed by a chart review documenting identification of IPV. Two methods are attempted to increase assessment/documentation of IPV: a physician educational intervention and a nursing routine inquiry intervention in one quadrant of the practice. The IPV physician educational intervention includes didactic sessions, an IPV counselor, and resource information. The routine inquiry intervention involves nurses screening female patients for IPV at check-in. IPV is found to be prevalent in a general medicine clinic. An enhanced educational intervention does not increase IPV documentation. A routine inquiry intervention significantly increases documentation of lifetime IPV but does not impact current IPV identification.

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Intimate partner violence (IPV) is a serious and common public health problem affecting an estimated 1.5 million women annually in the

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United States (Tjaden & Thoennes, 1998). Because of the high prevalence of IPV, several medical organizations and IPV experts recommend routinely assessing women for IPV (American Academy of Family Physicians, 1994; Cole, 2000; Family Violence Prevention Fund, 1999). Despite these recommendations only about 1 in 10 physicians ask their patients about IPV during the medical encounter (Rodriguez, Bauer, McLoughlin, & Grumbach, 1999; Waalen, Goodwin, Spitz, Peterson, & Saltzman, 2000). Physicians cite many reasons for their failure to screen for IPV including lack of time, lack of education, and a sense of powerlessness (Elliot, Gansky, Tang, McPhee, Carlton, et al. 2002; Gerbert, Nerney, Jones, & Friedmann, 2002; Waalen et al. 2000). Many different strategies have been studied to help providers electively screen patients for IPV. Several studies have looked at the impact of educational interventions and found that education alone did not produce significant changes in IPV identification (Kripke, Steele, O'Brien, & Novack, 1998; Roberts, Lawrence, O'Toole, & Raphael, 1997; Saunders, & Kindy, 1993). Other studies have found that combining education and enabling strategies such as chart prompts increased IPV screening and in some cases IPV identification (Covington, Dalton, Diehl, Wright, & Piner, 1997; Olson, et al., 1996). Incorporating IPV questions as a routine, nonelective, part of the medical encounter has been shown in some studies to increase IPV identification (Freund, Bak, & Blackhall, 1996; McFarlane, Cristoffel, Bateman, Miller, & Bullock, 1991).

Although educational interventions alone have not been shown to significantly or consistently impact IPV assessment and identification, the hypothesis was that an ongoing, multifaceted approach to education combined with enhanced practitioner resources, such as resource books at each nursing station, pocket cards, and the availability of a nurse specially trained in IPV counseling, would improve identification of IPV. It was believed that having a counselor on-site would help minimize the barriers of time, education, and powerlessness, and facilitate IPV assessment by providers.

To test this theory, a two-phase study was developed. In the first phase, the prevalence of domestic violence in an urban teaching general medicine practice was contrasted with physician identification of IPV in patients' charts. In the second phase, two different methods of potentially increasing domestic violence identification in the practice were evaluated. These two different methods included a physician-focused educational intervention with resource enhancement and a nurse-focused routine inquiry intervention where assessment became part of every medical encounter.

Methods

This study was undertaken in a diverse, academic, general internal medicine practice located in an urban midwestern city with a mixture of private insurance, managed care, Medicare, and Medicaid patients. The providers are attending physicians and internal medicine residents, with approximately 40% of providers being female.

For a 3-week period, all English-speaking women unaccompanied by a male partner were asked to participate in an anonymous survey as they registered for their visit. The anonymous survey included a modified version of the abuse assessment screen for IPV (appendix), which is a short screening instrument that has been previously validated (McFarlane, Parker, Soeken, & Bullock, 1992; Norton, Peipert, Zierler, Lima, & Hume, 1995). It contained six questions pertaining to past and current IPV. Affirmative answers to the four questions regarding current or past physical or sexual abuse were considered positive for IPV. The survey also included several demographic questions. Written informed consent was obtained prior to the administration of the anonymous survey. The results of the surveys were kept anonymous with no recording of the patient's name or correlation with their charts. The questionnaire's cover page provided telephone numbers of IPV hot lines and the contact number for the social workers at the hospital in case the questions caused emotional distress in the patients. Following the anonymous survey, 330 charts of women seen in the clinic were reviewed after their visits over an additional 2-week period to get a baseline estimate of intimate violence identification by physicians. The chart reviews went back to 5 years, when applicable, looking for any documentation of IPV by the providers. Over a 2-week period, all charts of women seen in the practice were reviewed.

A physician-oriented educational intervention followed, consisting of several modalities aimed at providing additional resources and educating the medical providers over the course of a year without making screening a routine part of the encounter. These included two 1-hour didactic sessions on IPV spaced 6 months apart, articles and regular e-mails pertaining to IPV, pocket cards for the doctors with hotline numbers and social work contact numbers, resource books in each nursing station for the doctors and patient information in the exam rooms. In addition, one of the nurses underwent 40 hours of IPV advocacy training and was available as a resource to providers and for counseling patients in the office for the duration of the study period. One year after the start of the intervention, a convenience sample of 303 charts was reviewed to assess the impact of the educational intervention on IPV identification in the practice.

The final phase of the study was a nursing-focused routine inquiry intervention that involved having the nurses in one quadrant ask patients two previously validated IPV screening questions while they were having their vitals taken (McFarlane et al., 1992; Norton et al., 1995). The practice is divided into four quadrants with regular teams of doctors and nurses caring for the same patients. Each quadrant is similar in terms of numbers of residents and percentage of female providers. Prior to the start of the intervention the charts from all four quadrants were surveyed, and it was determined that IPV identification was similar in all quadrants. In one quadrant over a 10-day period each unaccompanied English-speaking female patient was asked "Have you ever been hit, kicked, pushed, shoved, or slapped by an intimate partner?" and "In the past year have you been hit, kicked, pushed, shoved, or slapped by an intimate partner?" The answer was recorded on the computerized medical record form under the vitals section and also on the paper check-in sheet patients have outside their door before the doctors enter the room. One of the investigators reviewed the charts of all patients who answered positively to the nursing assessment and assured that the patients had been offered resource numbers and counseling if needed. The rate of IPV identification in the nursing inquiry quadrant, the intervention group, was compared with the rate of IPV identification in the other three quadrants, the usual care group, over the same 10-day period through a convenience sample review of 309 charts. Results were analyzed using chi-square methodology. Approval for all phases of the study was obtained from the institutional review board.

Results

Assessment Phase

The results of the anonymous survey in the waiting room including prevalence and demographic data are shown in Table 1. Both lifetime (27%) and current (4.2%) IPV were found to be common at all ages and at all levels of income although patients with low incomes had a higher prevalence of IPV. The rate of documentation of IPV identification in the charts was quite low (1.5%) relative to the prevalence of self-reported IPV in the anonymous survey (Table 2).

Intervention Phase

Physician-oriented educational intervention. We found a low incidence of assessment for IPV following the educational intervention unchanged

Table 1
Results of Anonymous Intimate Partner Violence Survey

	Total	No History of IPV ^a	Lifetime History of IPV ^b	Current History of IPV
Number (%)	306	222/306 (73%)	84/306 (27%)	13/306 (4.2%)
Age (years) mean	40.5	39.9	41.9	39.8
Age ≥ 65 number (%)	24/306 (8%)	17/24 (71%)	7/24 (29%)	1/24 (4.2%)
Income group (291 reported income information)				
<\$16,000	28/291 (10%)	15/28 (54%)	13/28 (46%)	2/28 (7%)
\$16-\$25,000	18/291 (6%)	14/18 (78%)	4/18 (22%)	0/18 (0%)
\$25-50,000	113/291 (39%)	82/113 (73%)	31/113 (27%)	4/113 (4%)
\$50-100,000	88/291 (30%)	62/88 (70%)	26/88 (30%)	5/88 (6%)
>\$100,000	44/291 (15%)	37/44 (84%)	7/44 (16%)	2/44 (5%)
Unknown	15	12/15 (80%)	3/15 (20%)	0/15 (0%)
Insurance status (303 reported insurance information)				
None	3/303 (1%)	1/3 (33%)	2/3 (66%)	0/3 (0%)
Medicaid	13/303 (4%)	4/13 (31%)	9/13 (69%)	1/13 (8%)
Medicare ^c	21/303 (7%)	15/21 (71%)	6/21 (29%)	2/21 (10%)
HMO/PPO	241/303 (80%)	179/241 (74%)	62/241 (26%)	8/241 (3%)
Private	25/303 (8%)	20/25 (80%)	8/25 (20%)	2/25 (8%)
Unknown	3	3 (100%)	0 (0%)	0 (0%)

a. IPV = intimate partner violence.

b. Lifetime IPV total includes current IPV.

c. Five patients reported Medicare plus additional insurance; these are included with Medicare data.

Table 2
Results of Intimate Partner Violence Educational Intervention for Physicians

	Charts Reviewed	Documented Screening	Number Negative	Number With Lifetime IPV ^{ab}	Number With Current IPV
Baseline Chart Survey <i>n</i> (%)	330	5/330 (1.5%)	2	3 (1%)	0
1-year post-education <i>n</i> (%)	303	9/303 (3%)*	6	3 (1%)	0

a. IPV = intimate partner violence.

b. Lifetime IPV totals include current IPV.

**p* = .2.

Table 3
Results of Intimate Partner Violence Routine Inquiry by Nurses

	Charts Reviewed	Documented Screening	IPV ^a Status Unknown	Number Documented Negative	Number With Lifetime IPV ^b	Number With Current IPV
Usual care	309	17/309 (5.5%)	292/309 (94.5%)	11/309 (3.6%)	6/309 (2%)	4/309 (1.3%)
Routine inquiry	102	102/102 (100%)	0 (0%)	84/102 (82.4%)	18/102 (17.6%)*	1/102 (1.0%)

a. IPV = intimate partner violence.

b. Lifetime IPV totals include current IPV.

* $p < .0001$.

from baseline. The results of the chart reviews are shown in Table 2. There was no statistically significant increase in assessment from baseline (1.5%) to after the intervention (3%) and no increase in the identification of lifetime IPV (1% before and after the intervention). Neither chart review identified any women as currently experiencing IPV.

Nursing-focused routine inquiry intervention. The rates of identification of IPV in the intervention quadrant were compared with the rates in the usual care group consisting of the other three quadrants of the practice over the same 10-day period. Eighteen women answered positively to the screening by the nursing staff. All but 1 had subsequent physician notation on IPV in their charts. In that one case, the principal investigator contacted the patient's physician the day following the visit. The provider contacted the patient and noted her intervention in an addendum to her previous note. Table 3 shows the results of IPV identification in the usual care and routine inquiry groups. Routine assessment for IPV by nursing staff at check-in significantly increased the identification of lifetime IPV (17.6% vs. 2%) but did not increase the identification of current IPV (1.0% vs. 1.3%).

Discussion

The baseline estimated prevalence for this practice as assessed through the anonymous survey was found to be similar to other prevalence studies

in similar settings (McCauley, Kern, Kolodner, Dill, Schroeder, et al. 1995; Smikle, Sorem, Satin, & Hankins, 1996; Wilt & Olson, 1996). The low baseline rate of physician inquiry about IPV was comparable with other studies in similar settings (Hamberger, Saunders, & Hovey, 1992; Smikle et al., 1996; Waalen et al., 2000). These findings demonstrate the high prevalence of IPV in our practice and the wide gap between the women reporting IPV and the women who were identified as such by their physicians.

In many previous studies, educational interventions have not been shown to significantly affect IPV screening (Kripke et al., 1998; Roberts et al., 1997; Saunders & Kindy, 1993). The enhanced intervention developed for this study was an ongoing, multifaceted approach to education combined with practitioner resources including resource books, pocket cards, and the availability of a nurse specially trained in IPV counseling. Nonetheless, the educational intervention did not improve assessment for IPV to a statistically significant degree and did not increase identification. One possible factor explaining the lack of improvement is that chart reviews may not accurately reflect how often physicians ask about IPV. The most likely reason for the negative finding in the educational intervention is that even ongoing and multifaceted education with the level of enhanced resources provided in this intervention was insufficient to alter physician behavior regarding screening for IPV. A growing body of evidence indicates that educational interventions alone are frequently not effective at changing the screening behavior of providers (Davis, Daffron, Johnson, Davis, & Kantowitz, 1998; Mazmanian, Thompson, Oxman, & Haynes, 1995). Often a routine prompt or reminder system is needed to augment the educational efforts (Covington et al., 1997; Olson et al., 1996). Thompson et al. (2000) demonstrated that an extensive educational intervention combined with a two-item questionnaire resulted in a 14% increase in assessment of IPV; nearly all the increase was attributed to the questionnaire, not the educational efforts. The current study reaffirms that educational interventions with enhanced resources do not increase IPV identification.

In contrast to the negative findings of the educational intervention, the nursing-focused routine inquiry intervention did result in a significant increase in identification of lifetime IPV though not of current IPV. Women experiencing current IPV are at greatest immediate risk, and efforts to identify them are essential. However, it is also important for providers to be aware of lifetime IPV history because of the significant impact the experience of violence has on women's health including increased risk of irritable bowel syndrome, pelvic pain, multiple somatic complaints, depression, anxiety, substance abuse disorders, and other sequelae (Campbell, 2002; Drossman,

Leserman, Nachman, Zhiming Lo, Gluck, H., Toney, T. C., et al., 1990; Eby, Campbell, Sullivan, & Davidson, 1995; Eisenstat & Bancroft, 1999; Hathaway et al., 2000; Schei, 1990). The lack of significant impact on identification of current IPV may have several contributing factors. Women who are abused are often reluctant to admit to violence for many reasons including shame, fear, and the belief that people will not understand or be able to help (McCauley, Yurk, Jenckes, & Ford, 1998). Because it is so hard to discuss this issue, women need to feel that they are in a safe situation in which to disclose their IPV. In one study, it was found that only 8% of women completing a form admitted to IPV, but this number increased to 29% when asked by their provider (McFarlane et al., 1991). McFarlane found a 17% incidence of battering during pregnancy with higher yields on questioning during each trimester (McFarlane et al., 1992). Covington et al. (1997) found that having providers ask a screening question at a single prenatal visit did not increase identification of IPV but that having them ask the screening question at each trimester did increase the rate of IPV identification. Having the patients' regular providers ask screening questions over more than one visit may have improved current IPV identification in the study population. It is also possible that routine inquiry may raise awareness allowing for future disclosure.

This study clearly shows that routine inquiry for IPV is much more effective for improving the rate of detection of lifetime IPV in a general medicine practice than is a physician-directed educational intervention with enhanced resources. Routine inquiry by nurses did not improve detection of current IPV. Questions remaining include how to increase the identification of current IPV and the generalizability of this study to other practice settings. While increased identification of IPV by providers has not been shown to improve the lives of women, the high prevalence and severity of the problem along with the potential for meaningful intervention make screening for intimate partner abuse an important issue for primary care providers.

Appendix

1. At any time has a spouse or partner (significant other) ever threatened to physically hurt you in any way?
2. Within the past year has a spouse or partner (significant other) ever threatened to physically hurt you in any way?
3. At any time has a spouse or partner (significant other) ever hit you, kicked you, or physically hurt you in any way?
4. Within the past year has a spouse or partner (significant other) ever hit you, kicked you, or physically hurt you in any way?

5. At any time has anyone ever used force or the threat of force to have sex with you against your will?
6. Within the past year has anyone ever used force or the threat of force to have sex with you against your will?
7. How old are you?
8. What is your family income?
9. What kind of insurance do you have?
10. What is your current marital status?
11. If you are single, divorced, or widowed, are you currently in a relationship?
12. Approximately how many times have you visited your physician in the past year?
13. Has *your doctor here* ever asked you about whether or not you have suffered from domestic violence?

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