



Does Screening in the Emergency Department Hurt or Help Victims of Intimate Partner Violence?

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Does Screening in the Emergency Department Hurt or Help Victims of Intimate Partner Violence?

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Abstract

Study objective—Recent systematic reviews have noted a lack of evidence that screening for intimate partner violence does more good than harm. We assess whether patients screened for intimate partner violence on a computer kiosk in the emergency department (ED) experienced any adverse events during or subsequent to the ED visit and whether computer kiosk identification and referral of intimate partner violence in the ED setting resulted in safety behaviors or contact with referrals.

Methods—We conducted a prospective, observational study in which a convenience sample of male and female ED patients triaged to the waiting room who screened positive (on a computer kiosk-based questionnaire) for intimate partner violence in the past year were provided with resources and information and invited to participate in a series of follow-up interviews. At 1-week and 3-month follow-up visits, we assessed intimate partner violence, safety issues, and use of resources. In addition, to obtain an objective measure of safety, we assessed the number of violence-related 911 calls to participant addresses within a call district 6 months before and 6 months after the index ED visit.

Results—Of the 2,134 participants in a relationship in the last year, 548 (25.7%) screened positive for intimate partner violence. No safety issues, such as calling security or a partner's interference with the screening, occurred during the ED visit for any patient who disclosed intimate partner violence. Of the 216 intimate partner violence victims interviewed in person and 65 contacted by telephone 1 week later, no intimate partner violence victims reported any injuries or increased intimate partner violence resulting from participating in the study. For the sample in the local police district, there was no increase in the number of intimate partner violence victims who called 911 in the 6 months after the ED visit. Finally, 35% (n=131) reported they had contacted community resources during the 3-month follow-up period.

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Author contributions: DH, NJK, LAM, CC, HS, and KVR developed the study design and obtained funding. DH, NJK, and RSK oversaw the study protocol and enrollment of participants. ER and CL performed statistical analyses. All authors participated in drafting and revising the article and all approved the final version. DH takes responsibility for the paper as a whole.

Conclusion—Among patients screening positive for intimate partner violence, there were no identified adverse events related to screening, and many had contacted community resources.

INTRODUCTION

Background

Although victims of intimate partner violence frequently use emergency department (ED) services, most present for non-injury-related complaints and are not screened for intimate partner violence despite recommendations for routine intimate partner violence screening by the American Medical Association and The Joint Commission.¹ However, neither the United States Preventive Services Task Force nor the Canadian Task Force on Preventive Health Care found sufficient evidence to recommend for or against intimate partner violence screening.^{2,3}

Editor's Capsule Summary

What is already known on this topic

It is unclear whether routine emergency department (ED) screening for intimate partner violence is beneficial or harmful.

What question this study addressed

Whether, at 1 week and 3 months, patients who were screened for intimate partner violence in the ED experienced increased intimate partner violence and whether they accessed subsequent help for their situation.

What this study adds to our knowledge

Two hundred sixteen patients were seen in follow-up in this prospective study. There was no evidence of violence resulting from the screening process. At 3 months, more than one third of patients had made contact with support resources.

How this might change clinical practice

This study alleviates some concern about adverse effects of ED screening for intimate partner violence and provides support for screening and referral.

Importance

One piece of information needed and not available for the United States Preventive Services review was an assessment of the safety of intimate partner violence screening itself. In fact, there are limited data available on the potential for harm or retaliation that might result from routine screening and intimate partner violence identification in a health care setting with either women or men.

In addition, very few studies have examined the effectiveness of intimate partner violence screening related to seeking out resources or patient outcomes. One study found that almost half of women who disclosed intimate partner violence during screening accepted case management follow-up.⁴ Many of these women believed that they were no longer at risk for intimate partner violence after participating in the screening. However, another study revealed that most health care providers documented intimate partner violence status after patients participated in a mandatory waiting room screen, but only 10% of these medical records included any mention of a safety plan or referral.⁵ These results suggest that even if screening is implemented in health care settings, it may not objectively improve referrals or outcomes.

Goals of This Investigation

The goals of this study were (1) to determine whether patients (male or female) who disclosed intimate partner violence victimization on a computer screening assessment in the ED would have any safety issues (ie, disruption of the visit by a partner, security involvement) compared with ED patients who did not disclose intimate partner violence; (2) to ascertain whether intimate partner violence victims had any short-term safety issues at 1-week and 3-month follow-up related to screening, including increased number of violent acts, increased severity of intimate partner violence, and other self-reported safety issues after participation or any increases in 911 calls 6 months after the ED visit from the addresses of all patients who screened positive for victimization within 1 call district; and (3) to investigate whether screening linked with automatic (computer-generated) resource information would result in intimate partner violence victims contacting referrals or taking any measures to improve their safety.

MATERIALS AND METHODS

Study Design

We conducted an intervention study with a prospective cohort of intimate partner violence victims from February 2004 to April 2006. We identified male and female intimate partner violence victims at an index ED visit by using a touch-screen computer kiosk. The intervention consisted of computer-generated targeted referrals tailored to the health risk behaviors, specifically intimate partner violence in this study that the patient disclosed on the kiosk. We then conducted follow-up interviews with these victims at 1 week and 3 months after their initial ED visit to assess safety issues and resource utilization. We also reviewed 911 calls 6 months before and 6 months after the initial ED visit for a select group of participants.

Setting

An ED located in a large, urban, university-affiliated, public health care system in the United States that serves as a teaching hospital for 2 medical schools was the site for data collection. The annual ED volume is 105,000 patient visits. Individuals receiving care at this Level I trauma center are predominantly black, of low socioeconomic status, and either uninsured or publicly insured. The university institutional review board and hospital research oversight committee approved this study.

Selection of Participants

The research assistants had experience working in intimate partner violence shelters or rape crisis centers and had conducted interviews with research subjects in previous positions. These research assistants approached all ED waiting room patients during our study hours, Monday through Wednesday, 11 AM to 7 PM. Inclusion criterion were ED patients aged 18 to 55 years, able to speak and read English at a fifth-grade level, and capable of standing for 20 minutes. Exclusion criterion were previously enrolled, intoxication, acute psychosis, and in need of immediate medical attention.

Inclusion criterion for female participants for the first follow-up assessment, which occurred 1 week after the index ED visit, was a positive screen for intimate partner violence on the Universal Violence Prevention Screening Protocol administered on the touch-screen kiosk.⁶ Male participants disclosing victimization on the Universal Violence Prevention Screening Protocol were also eligible for follow-up if they did not report any perpetration or if they reported perpetration behaviors but scored greater than or equal to 20 on a sex-neutral version of the Women's Evidence of Battering scale.^{7,8} We chose to exclude men who exhibited both victimization and perpetration behaviors and did not disclose any loss of power or control or

fear of the abuse, measured by the gender-neutral Women's Evidence of Battering scale, because these men did not fit the victimization role we were screening for.

Participants who participated in the 1-week face-to-face interview were eligible to participate in a 3-month face-to-face interview. For participants who were eligible for follow-up interviews but either told the research assistants in advance that they could not return for an in-person interview or failed to show up for their interview, a brief telephone interview was attempted. They were not eligible to participate in the 3-month follow-up interview because we were repeating the validated measures and detailed checklists on specific resources and safety measures asked at the face-to-face interviews.

Interventions

Individuals meeting inclusion criteria were invited by the research assistants to a semiprivate booth in the ED waiting room, where the research assistants explained to the participant that the study was about health and behavioral issues, addressed questions, and obtained written informed consent. The participants responded to survey questions on a counter-height touch-screen computer kiosk about intimate partner violence victimization and perpetration, mental health symptoms, substance use, and behavioral health risks. Skip patterns limited the amount of time the survey took to complete. For example, if a patient did not report alcohol consumption, they were not asked further questions about alcohol use. Participants who had not been in a relationship in the past year did not answer intimate partner violence questions. All survey responses were automatically recorded onto a Microsoft Access (Microsoft Corporation, Redmond, WA) database on the kiosk hard drive. Participants who disclosed any health issues (substance abuse, depression, etc) were given specific community referrals tailored to their unique needs.

After participants completed the computer screening, research assistants received a printout indicating the participant's intimate partner violence status and they obtained contact information for those who met the inclusion criteria for follow-up visits (intimate partner violence victimization). Research assistants asked the intimate partner violence victims if they would be willing to come back for a follow-up interview about the computer kiosk program and any issues the participant experienced from participating in the program. They also asked participants to respond verbally to 7 questions about acts of violence and severity of abuse experienced 1 week before the ED visit. These questions were modified from McNutt et al⁹ to reflect the 1-week period before the index ED visit. The research assistants then scheduled the intimate partner violence victim for a 1-week follow-up interview appointment before their discharge from the ED. All intimate partner violence victim participants received a printout about "relationship issues" and a list of community resources for intimate partner violence, including support groups, legal services, intimate partner violence hotlines, and shelters. This printout was similar to the referral information all participants received about other health risk behaviors they disclosed on the kiosk. See the Figure for the flow diagram of patient recruitment and attrition.

Research assistants used a standardized chart abstraction sheet to note observations during the screening process, in addition to reviewing the medical chart for the patient's ED visit. They specifically coded any security involvement, interference in screening or the medical visit by a partner, and patient disposition.

The research assistants conducted the onsite 1-week follow-up assessments in a private room in the ED. The interview consisted of a series of questionnaires, including the Revised Conflict Tactics Scale,¹⁰ Short-Form 12,¹¹ and questions about safety issues and resources contacted since the screening study (see Appendix E1 [available online at <http://www.annemergmed.com>] for interview guide). In addition, the same 7 questions about

acts of violence and severity of the most recent intimate partner violence incident that were asked at the index ED visit were asked again at the follow-up assessments about the time since the ED visit, using questions from McNutt et al,⁹ which we specifically adapted for each period. These interview questions were piloted with intimate partner violence victims for 1 month before implementation of our full study.

This interview lasted approximately 1 hour, and participants received \$20 for their time and funds to cover the cost of public transportation. The 3-month follow-up assessment consisted of the same questionnaires but was modified to reflect the 3-month follow-up period. This interview also lasted approximately 1 hour, and participants received \$40 for their time and funds to cover the cost of public transportation.

For participants who were eligible for follow-up interviews but did not complete a face-to-face 1-week interview, the research assistants attempted a brief telephone interview. The 5-minute telephone interview consisted of 7 questions, including “Did you have any problems related to participating in the study?” “Did you have any problems with your partner after you got home from your ED visit?” “Do you still have the referral information we gave you?” and “Have you called any of the referral numbers?”

ED follow-up is notoriously difficult, particularly when subjects are required to return to the ED for further assessment. Therefore, we added an additional objective measure of potential harm related to screening; research assistants reviewed 911 calls for all participants from the index ED visit who lived within a specific call district. To make sure we were capturing a change in safety, as opposed to baseline problems, we collected information on all 911 calls to the participant’s address 6 months before and 6 months after the index ED visit. The local police department provided a database with all 911 calls to the addresses that we requested within their precinct during the specified period. We excluded addresses for shelters and apartment complexes if the caller or apartment number was not identified. We used the standard 911 codes reported by the police department, and we recoded the calls for kidnapping, shooting, drunk/disorderly fight, injured, dead, shot, stabbed, suicide, and person armed into a “possible violence” category. Obviously we were not able to review 911 calls for those without a permanent address (homeless or residing in transient housing), and we did not have access to calls made outside the district. Nonetheless, we believed the information provided some validation of a victim’s claims of serious incidents of harm.

Methods of Measurement

Any participant who had been in a relationship in the past year was asked questions about intimate partner violence. We used the Universal Violence Prevention Screening Protocol⁶ to assess intimate partner violence victimization. A response in the affirmative to any of the 5 items related to physical violence, threat of violence, sexual violence, or emotional violence yielded a positive screen for intimate partner violence victimization. The Universal Violence Prevention Screening Protocol has a positive predictive value of 71% to 89% for each item and a sensitivity of 78% to 95% for the physical and emotional abuse screening questions compared to the Index of Spouse Abuse.¹²

Patients who screened positive for intimate partner violence victimization were given the Women’s Evidence of Battering scale to determine levels of victimization and battering. The scale includes 10 questions, scored on a 5-point Likert scale. The Women’s Evidence of Battering has high internal consistency reliability ($\alpha = .99$) and high discriminant validity with women.⁷

The Revised Conflict Tactics Scale assessed the types and levels of violence in 5 subscales: negotiation, psychological aggression, physical assault, sexual coercion, and injury.¹⁰ The

Short-Form 12 measured functional health status for psychological and physical domains using the Mental Component Summary Scale and the Physical Component Summary Scale.¹¹

We measured safety issues by (1) observing for any adverse events in the ED waiting room (security involvement, partner tried to interfere with the screening process); (2) reviewing the complete ED medical record for each participant for safety issues (security involvement, partner tried to interfere with the medical visit, patient left against medical advice); (3) asking the same 7 questions about acts of violence and severity of most recent intimate partner violence incident at baseline, about the week before the ED visit, and again at 1 week and 3 months; (4) interviewing the participants to determine whether the violence had worsened during the past week, whether they had told their partner about the study, and whether they had any concerns or safety issues from completing the screening assessment (see interview guide in Appendix E1 [available online at <http://www.annemergmed.com>] for all questions asked at 1 week); and (5) reviewing 911 calls within a single call district 6 months before and 6 months after the index ED visit.

Research assistants used a standardized interview guide modified from the National Center for State Courts 18-item measure¹³ to ask participants about resources used and safety measures taken since the ED visit. Thirteen questions were posed about safety measures, including whether the participant moved out, changed their telephone number, etc. A checklist was used to review which resources were utilized (intimate partner violence hotline, shelter, intimate partner violence support groups, legal aid, children's programs, mental health counseling, and substance abuse treatment).

Primary Data Analysis

We used SAS 9.1 (SAS Institute, Inc., Cary, NC) for statistical analysis. Summary statistics of demographic characteristics, including substance abuse and measures of mental health, were computed and compared between male and female participants, those who participated and those who did not, and intimate partner violence negative and positive participants.

To answer the study question about whether patients who disclosed intimate partner violence victimization on a computer screening assessment in the ED had safety issues during the ED visit compared with patients who did not disclose intimate partner violence, we tabulated occurrences of safety issues during the screening process and the index ED visit.

To determine whether there were any safety issues directly relating to intimate partner violence screening during the follow-up period, we tabulated interview responses about safety concerns from 1-week and 3-month follow-up visits. We also compared the responses to the 7 questions about acts and severity of violence for the week before the ED visit, 1 week after the ED visit, and 3 months after the ED visit to assess for any changes since intimate partner violence screening. Finally, we computed the proportion of participants who called 911 6 months before and 6 months after the index ED visit, further stratifying by violence-related calls and those who disclosed intimate partner violence. We also calculated the median number of calls for both total 911 calls before and after screening and compared the differences with the Wilcoxon rank sums test.

To answer whether computer screening and referral in the ED setting resulted in resource utilization and increased use of safety measures for men and women who screened positive for intimate partner violence, we tallied use of intimate partner violence resources and safety measures taken by respondents at the 1-week and 3-month visits.

RESULTS

Approximately 6,328 patients were triaged to the waiting room during our study hours, and 5,473 were approached to participate in the study. Four thousand four hundred twenty-five patients were eligible for survey participation and 3,083 (69.6%) consented to participate. No differences existed for race or chief complaint between participants and nonparticipants, although participants tended to be younger and women. Overall, of the initial 3,083 consenting participants: 47% were women, 88% were black, and 71% were single. Of these participants, 2,737 (88.7%) completed the entire survey; however, we included the answered fields on the incomplete surveys. Nine hundred thirty-six participants were not in a relationship in the previous year, and thus they were not asked the intimate partner violence screening questions; 13 participants quit the survey before answering the relationship questions, so intimate partner violence status was not assessed. Of the 2,134 men and women in a recent relationship, 548 (25.7%) disclosed victimization within the past year. Table 1 details the characteristics of the 2,134 participants who responded to the intimate partner violence questions.

Five hundred forty-eight participants were eligible for 1-week follow-up. Table 1 demonstrates demographic differences between those eligible (intimate partner violence victims) and not eligible (in a relationship in the past year but not meeting intimate partner violence victimization criteria) for follow-up. Intimate partner violence victims tended to be younger, women, and unemployed; to use street drugs and smoke; and to have mental health symptoms. Within the past year among the intimate partner violence victims (n=548), 318 disclosed physical violence, 132 experienced sexual violence, 120 were threatened with a weapon by their partner, 168 were afraid their partner would physically hurt them, and 412 stated their partner used words or yelled at them in a way that frightened them.

Of the 548 interviewed, 430 intimate partner violence victims consented to follow-up, and 281 (65.3% of those consenting, 51% of those interviewed) participated in a 1-week interview, 216 in person and 65 by telephone. One hundred forty-nine participants were lost to follow-up. A higher proportion of participants who disclosed moderate to severe depressive or posttraumatic stress disorder symptoms participated in follow-up interviews than those with low levels of symptoms. In addition, a higher proportion of participants who did not have people to talk to about problems or anyone to stay with in an emergency participated in follow-up interviews than those with social resources. No differences emerged with regard to sex, race, marital status, employment, or substance abuse. Table 1 further illustrates this information.

In response to our first study objective, none of the participants (n=3,083), both those who disclosed intimate partner violence and those who did not disclose intimate partner violence, had any safety issues in the ED after participating in the computer screening.

Next, we sought to answer our second study objective about safety issues during the follow-up period. We found that only 2 of our intimate partner violence victims reported any safety concerns or emotional distress during their follow-up in-person interviews (n=216). Of these, both reported recurring emotional thoughts about the abuse after disclosing intimate partner violence during screening. Only 1 participant reported during the telephone follow-up interview (n=65) that there were issues associated with study participation. This participant related an incident in which she and her partner argued after she got home, mostly related to household chores.

We were able to review 911 calls for 34% of the initial consenting participants in the ED (N=1,037/3,083). We received information on 1,285 addresses, but we excluded 248 of these addresses (77 were shelters, 105 addresses were apartment complexes that did not have an apartment number noted, and the remainder were either the wrong county or the address did not exist). Of the 1,037 participants with addresses in the call district, 224 (21.6%) screened

positive for intimate partner violence and 911 call information was available on 103 participants who completed a 1-week follow-up interview and 65 participants who participated in the 3-month follow-up assessment. The median number of total 911 calls for all participants did not change between 6 months before (0) and 6 months after (0) the index ED visit. There was no increase in the proportion of participants who called 911 after the index ED visit. In fact, there was a trend toward fewer 911 calls by intimate partner violence victims for all calls and violence-related reasons. Table 2 illustrates this in detail.

We also reviewed acts of violence and the severity of the most recent abuse in those intimate partner violence victims who had recent contact with a partner 1 week before the ED visit (n=234), at the 1-week assessment (n=152), and at the 3-month assessment (n=102). Most victims who had contact with a partner reported reduced emotional and physical intimate partner violence at 1 week after screening. However, most of these levels returned to the initial reported levels by 3 months (Table 3).

In regard to the impact of ED screening and referral on resource use and safety measures, 95% of intimate partner violence victims stated they benefited from project participation. Eighty-six percent of intimate partner violence victims contacted by telephone still reported that they had the resource information. In addition, 83% of intimate partner violence victims self-reported that they kept the resource information and 62% reported they had read the intimate partner violence information by their 1-week interview. At 1 week after the ED visit, 15% of participants had reported contacting one of the resources and 35% reported contacting a resource by 3 months. Table 4 lists the most commonly accessed resources and the most frequent safety measures taken.

LIMITATIONS

Before one generalizes our findings, there are certain factors to consider. The study recruited a convenience sample of patients who were not acutely ill or severely injured. The limited sample size at the 3-month follow-up assessment limits analysis. Many intimate partner violence victims were lost to follow-up, and these victims may have had safety issues after screening positive for intimate partner violence or these victims may not have found the resource information helpful and decided not to continue their participation in the study. Our self-selected population at follow-up may not reflect the general experience of all the intimate partner violence victims in the study. However, we did contact by telephone 65 of the victims who failed to follow up in person, and only 1 had a potential safety issue. In addition, of the victims lost to follow-up, none had any safety issues in the ED during their medical visit and there were no increases in the number of calls to 911. Also, results based solely on self-report and recall bias or unwillingness to report may have affected the findings. Those at most risk may not have reported the intimate partner violence because of fear. Therefore, the most severely injured people with intimate partner violence may not have been screened or identified.

Another limitation of our study is that our observational and self-reported measures of safety issues may not have been sufficient to pick up all instances of harm. We used 911 calls as an objective measure, but this may not be a true measure of harm because those who feel empowered to ask for help may be more likely to contact 911, and we did not determine what calls were specifically for intimate partner violence. In addition, we had access to only 1 district for 911 calls, so this sample does not represent all participants in our study, including homeless patients. We also cannot account for violence that occurred outside the home. Our study is subject to social desirability bias, and it is possible that participants overestimated their use of resources or thought that they should report reading the materials. Finally, this study was

conducted in an inner-city ED in a large southern city, and therefore the study population may not generalize to other settings or geographic regions.

DISCUSSION

We found no evidence that computer-based screening for intimate partner violence in the ED setting resulted in harm or significant adverse events for intimate partner violence victims. However, ED follow-up is notoriously poor for all manner of acute medical and surgical complaints, so adverse events may well have occurred in the group without follow-up. Nonetheless, 65% of screened intimate partner violence victim participants who agreed to participate either returned to the ED for follow-up interviews or were contacted by telephone. Of this group, the majority (95%) stated that they benefited from participating in the intimate partner violence screening study. Furthermore, of those who returned for a 1-week interview, 62% had read the resource information and 15% contacted resources since the ED visit, which suggests that screening and associated referral is immediately beneficial and of interest to a significant number of patients abused by their partners.

Although several obstacles exist for intimate partner violence screening in the ED, including fear of offending the patient, patient nondisclosure,¹⁴ lack of resources,¹⁵ lack of education of medical personnel, lack of specific treatment protocols, time constraints, and lack of support staff (eg, social workers),¹⁶ our research demonstrates that universal intimate partner violence screening in the ED is possible and resulted in utilization of resources and safety measures. Moreover, in this large cohort of screened patients there was no evidence of any harm related to intimate partner violence screening and referral.

In the changing health care environment, there are progressively more demands on provider time. Despite the lack of standardized screening related to intimate partner violence across EDs, many patients view screening as helpful, and one large, multicenter study reported that 80% to 89% of female ED patients think physicians should ask about abuse.¹⁷ Computer screening is associated with high rates of disclosure of emotional or physical abuse in ED patients.¹⁸ Moreover, patients taking the computer-based health risk assessment appreciate the opportunity to self-disclose their psychosocial health risks.¹⁹ Female patients prefer self-completed approaches (written questionnaire or computer-based questionnaire) over face-to-face interviews with a health provider.²⁰ Thus, self-administered computer surveys may be a relatively low-cost method of increasing the identification of serious health risks, including intimate partner violence, with minimal staff effort.

To our knowledge, no studies have measured possible harms associated with intimate partner violence screening and referrals. If hospitals do not adequately address a positive screen for intimate partner violence, it might result in unintended harm. We addressed this by having the computer automatically print out a list of referrals and resources targeted at risk factors self-reported by the patients. Intimate partner violence referrals were couched in general terms and embedded within a list of other resource numbers in case an abusive partner saw the information. With these safeguards, there were no identified instances of violence associated with the ED visit after participation in intimate partner violence screening. In the present investigation, the most prevalent concern about the survey was the personal nature of the questions, and some intimate partner violence victims felt they had to reexperience the abuse by answering these questions. However, even these reported adverse events were minimal. One week after screening, most intimate partner violence victims reported decreased levels of emotional and physical abuse. For the subsample in which we were able to review trends in intimate partner violence-related 911 calls, for those victims lost to follow-up, we found no changes in the number or type of 911 calls to the addresses of self-disclosed intimate partner violence victims after the index ED visit.

Victims have a host of reasons for seeking safety in a medical setting, and it is important that the medical community know when and how to respond to disclosures of violence. In our study, we found that victims with higher levels of physical violence were more likely to implement safety measures. In addition, those endorsing mental health symptoms were more likely to access community resources. This suggests those in most need may actually benefit from screening and referrals.

A systematic review of interventions for intimate partner violence concluded that in most studies the effectiveness of interventions was unclear.³ A New Zealand ED study reviewed the effectiveness of a protocol on identifying victims of intimate partner violence, improving documentation, and increasing referrals and found that any initial improvements were not sustained at 1-year follow-up.²¹ Muelleman and Geighny²² implemented an ED-based advocacy system and reported that intimate partner violence victims in the intervention were more likely to use a shelter or counseling services within 1 year compared with the control group. Although we did not randomize screening or referrals, in our study, one third of participants who returned for their 3-month assessment self-reported contacting community resources, a finding that provides support for the effectiveness of an ED referral. Likewise, although we were unable to fully assess the presence of any reprisal violence, we examined physical and emotional abuse after screening for a large sample of our participants and found that incidents of violence decreased 1 week after the ED visit.

Despite potential risks associated with screening for intimate partner violence, including reprisal violence and unintended legal consequences, having protocols to effectively refer and evaluate intimate partner violence victims should mitigate this. The possible benefits from screening for intimate partner violence are substantial: decreasing future violence to the victim or child exposure to violence, referring victims to community resources, documenting intimate partner violence and setting a legal precedent, and acknowledging the presence of intimate partner violence in the victim's life. Therefore, although the US Preventive Services Task Force and the Canadian Task Force on Preventive Health Care do not recommend for or against screening, our study provides support, if not evidence, for the safety and effectiveness of intimate partner violence screening.

In conclusion, we used several methods to assess for potential serious adverse events related to screening for intimate partner violence in our urban ED population and found none. In addition, many reported developing safety plans and contacting community resources.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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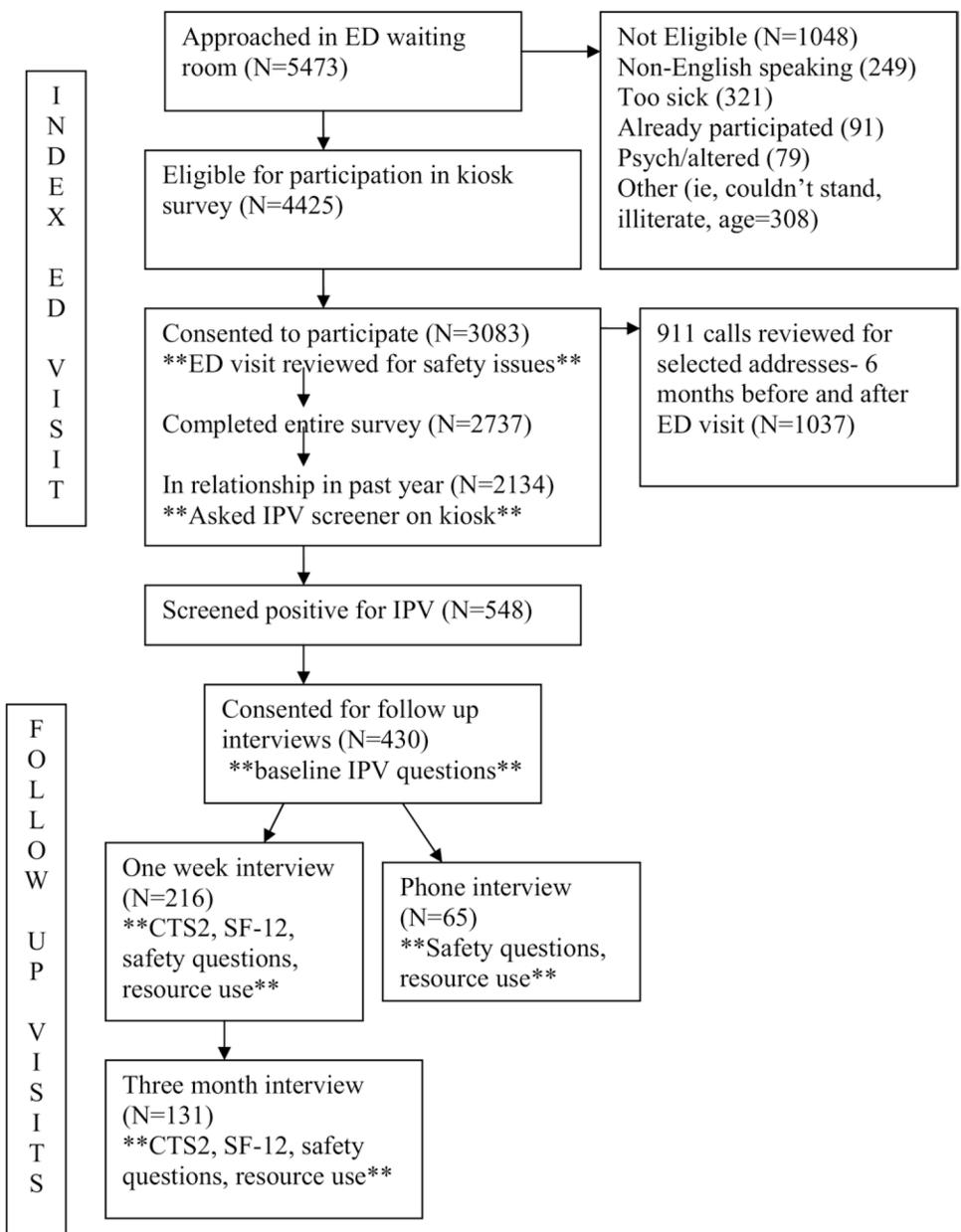


Figure. Flow diagram of participants and measures. *IPV*, Intimate partner violence; *CTS2*, Conflict Tactics Scale; *SF-12*, short-form 12.

Table 1
Characteristics of participants by intimate partner violence status.

Characteristics	IPV Negative, ED Visit, n=1,586	IPV Positive, ED Visit, n=548	IPV Positive, Any Follow-up N=281*	IPV Positive, No Follow-up N=267*
Mean age, y (SD)	34.7 (10.7)	32.9 (11.1)	33.6 (11.4)	32.2 (10.8)
Female sex	49.4%; 765/1,582	61.3%; 336/548	65.1%; 183/281	57.3%; 153/167
Race				
Black	90.6%; 1,433/1,581	87.4%; 479/548	89.7%; 252/281	85%; 227/267
White	7.1%; 112/1,581	8.9%; 49/548	8.5%; 24/281	9.4%; 25/267
Other	2.3%; 36/1,581	3.6%; 20/548	1.8%; 5/281	5.3%; 15/267
Marital status				
Married	13.6%; 205/1,503	9.1%; 49/541	8.6%; 24/278	9.5%; 25/263
Single	70.5%; 1,060/1,503	69.5%; 376/541	70.5%; 196/278	68.4%; 180/263
Separated/divorced	15.1%; 227/1,503	20.5%; 111/541	20.1%; 56/278	20.9%; 55/263
Widowed	0.7%; 11/1,503	0.9%; 5/541	0.7%; 2/278	1.1%; 3/263
Education				
Less than high school	16.9%; 256/1,497	23.9%; 129/541	26.3%; 73/278	21.3%; 56/263
Finished high school	44.4%; 665/1,497	39.2%; 212/541	36.7%; 102/278	41.8%; 110/263
Some college or finished college	38.5%; 576/1,497	37%; 200/541	37.1%; 103/278	36.9%; 97/263
Unemployed	47.4%; 673/1,419	59.2%; 316/534	63.5%; 172/275	55.6%; 144/259
Street drugs	19.4%; 279/1,437	29.4%; 158/537	27.5%; 76/276	31.4%; 82/261
Smoker	44.7%; 642/1,435	59.2%; 318/537	58.3%; 161/276	49.4%; 157/261
Alcohol abuse	17.7%; 253/1,433	23.9%; 128/535	22.5%; 62/276	25.5%; 66/259
Moderate/severe depression	14.5%; 217/1,493	36%; 197/547	42.5%; 119/280	29.2%; 78/267
Moderate/severe posttraumatic stress disorder	5.8%; 86/1,474	21%; 115/547	26.2%; 73/279	15.9%; 42/264
Suicidal ideation	3.2%; 47/1,454	9.9%; 53/538	12.3%; 34/276	7.3%; 19/262
Daily contact with people	90.3%; 1,264/1,399	83.6%; 458/534	84%; 231/275	87.6%; 227/259
Have someone to talk to about problems	85.9%; 1,198/1,395	70.1%; 384/534	73.3%; 184/251	81%; 200/247
Have someone to stay with during an emergency	84.9%; 1,185/1,395	68.4%; 375/534	69%; 178/258	79.8%; 197/247

* N varies in categories because of incomplete responses on initial computer survey.

Comparison of 911 calls made from residences of 1,037 participants in 1 call district, 6 months before and after ED visit.

Table 2

	All Participants				Nonvictims of Intimate Partner Violence				Victims of Intimate Partner Violence											
	6 mo Before		6 mo After		6 mo Before		6 mo After		6 mo Before		6 mo After									
	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)								
Possible violence*	162/1,037	(16)	142/1,037	(14)	116/813	(14)	119/813	(12)	46/224	(21)	23/224	(10)	23/121	(19)	11/121	(8)	23/103	(22)	12/103	(10)
Total calls	279/1,037	(27)	279/1,036	(27)	212/813	(26)	225/813	(28)	67/224	(30)	54/223	(24)	36/121	(30)	29/121	(24)	31/103	(30)	25/102	(25)

* "Possible violence" calls were defined as 911 call codes for kidnapping, shooting, drunk/disorderly fight, injured, dead, shot, stabbed, suicide, and person armed.

Table 3

Changes in intimate partner violence behaviors for those with recent contact with partner.

Behaviors	Baseline (1 wk Before Index Visit)	1 wk	3 mo
Recent contact with partner [*]	234/396 (59%) [†]	152/216 (70%)	102/131 (78%)
	A lot/quite a bit N=234	A lot/quite a bit N=152	A lot/quite a bit N=102
Put-down/insult, %	33	18	33
Jealous, %	45	32	30
	≥3 Episodes	≥3 Episodes	≥3 Episodes
Pushed/grabbed, %	9	3	20
Slapped/hit, %	5	2	12
Threatened with weapon, %	2	0	4
Forced sex, %	3	1	7
	Very abusive	Very abusive	Very abusive
Worst experience with partner, %	15	7	17

* In the past week (baseline) or since your visit to the ED (follow-up), have you had contact with your current partner or a former intimate partner?

[†] Denominator should be 430, but information on 34 participants is missing.

Table 4

Top 5 most frequent used resources and safety measures.

Resources and Safety Measures	One-wk Follow-up Report (%) (n=216)	Three-mo Follow-up (%) Report (n=131)
Used any of the resources	32 (15)	46 (35.1)
Hotline	11 (5)	26 (19.8)
IPV support groups	8 (3.7)	15 (11.5)
IPV shelter	7 (3.2)	8 (6.1)
Emergency housing	5 (2.3)	—
Alcohol treatment	2 (0.9)	11 (8.4)
Mental health counseling	—	19 (14.5)
Read information	134 (62)	80 (61.1)
Made a safety plan	50 (23.1)	44 (33.6)
Hid money in case you need to leave	46 (21.3)	33 (25.2)
Moved out	34 (15.7)	43 (32.8)
Called IPV hotlines/referrals	32 (14.8)	—
Take someone along when you go out	—	33 (25.2)
Asked others to tell you if your partner tried to contact you	—	30 (22.9)