Cueing Prenatal Providers  
Effects on Discussions of Intimate Partner Violence  
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Background: Intimate partner violence (IPV) during pregnancy poses a significant health risk to the mother and developing fetus. Practice guidelines recommend that prenatal providers screen for and counsel their patients about IPV, yet many physicians express reluctance or discomfort regarding such discussions. The Health in Pregnancy (HIP) computer program was designed to improve prenatal providers’ counseling about behavioral risks.

Methods: English-speaking women 18 years or older, less than 26-weeks pregnant, and receiving prenatal care at one of the five participating clinics in the San Francisco area, were randomized in parallel groups in a controlled trial (June 2006–present; data analyzed June 2007). Participants reporting one or more risks were randomized to intervention or control in stratified blocks. Providers received summary “cueing sheets” alerting them to their patient’s risk(s) and suggesting counseling statements.

Results: Thirteen percent (37/286) of the sample reported current IPV. Provider cueing resulted in 85% of the IPV-intervention group reporting discussions with their provider, compared to 23.5% of the control group ($p<0.001$).

Conclusions: IPV discussions were influenced strongly by cueing providers. Provider cueing is an effective and appropriate adjunct to routine risk counseling in prenatal care.

Introduction

Pregnancy is a critical time to address intimate partner violence (IPV), a significant risk to the health of both the mother and developing fetus. IPV is pervasive among nonpregnant women, and research has found that 4%–20% of pregnant women experience IPV. Violence perpetrated against a pregnant woman increases her risk for preterm labor, chorioamnionitis, delivering a low-birthweight infant, and homicide. Accordingly, the American College of Obstetricians and Gynecologists (ACOG) recommends routine screening for violence during pregnancy.

Physicians are often the most important source of health information, and advice messages from physicians can be powerful motivators for change. Unfortunately, although concerned about violence in the lives of their patients, prenatal providers frequently are reluctant to screen for and counsel about violence. Barriers to consistent screening and counseling include discomfort with the topic, fear of offending the patient, and a sense of powerlessness.

Provider cueing mechanisms, however, either in the medical record or as computerized reminders, have increased screening for and counseling about other risks, especially smoking. Similar cueing mechanisms may help providers overcome their barriers to discussing IPV by supporting and simplifying their role in initiating the discussion; by presenting the provider with the patient’s risk profile and possible counseling statements, the cueing mechanism can guide the provider through the conversation, minimizing the discomfort that the provider might otherwise feel without such instruction.

The Health in Pregnancy (HIP) computer program was developed to support and simplify prenatal providers’ efforts to screen and counsel their patients about IPV. This study, embedded in a larger, randomized trial of patient risks and clinical outcomes, assessed the impact of provider cueing on patient–provider discussions about IPV, as compared to smoking.

Methods

In June 2006, a randomized, controlled trial was launched to assess the effectiveness of the HIP program in five prenatal clinics in the San Francisco Bay Area. Participants were English-speaking women 18 years or older, less than 26-weeks...
pregnant, and receiving prenatal care at one of the participating clinics. The participants represent a convenience sample; they were the eligible pregnant women present in the clinics’ waiting rooms on the days (and hours) when the research assistants were at that specific site. Using a laptop computer in a private examination room, participants completed a risk assessment immediately prior to a regularly scheduled prenatal appointment. After the appointment, they completed a brief post-interview. The computer program collected demographics (including race/ethnicity) and screened for tobacco, alcohol, and drug use, and for IPV. Smoking within the previous 30 days was assessed by five questions drawn from the California Adult Tobacco Survey.24 Alcohol and drug use were assessed using tools adapted from previously published works by Mullen et al.25 and Chasnoff et al.,26 respectively. Items assessing current physical or sexual violence were adapted from the Abuse Assessment Screen,27 and inquired about violence in the year before the pregnancy and the interval since the pregnancy began. Women reporting risks were stratified by risk combination (one of 15 possible combinations of the four risky behaviors) and assigned by the computer to intervention or control groups in blocks of one, ensuring equivalent numbers of intervention and control participants for each risk combination.

The post-interview assessed the occurrence of any discussions about risks in the just-completed prenatal appointment, how helpful they were to the patient, and the acceptability of the HIP program. Helpfulness was measured on a four-point scale (very helpful, helpful, not very helpful, not helpful at all). Acceptability of the program included several items, such as how much they liked using the computer program (liked very much, liked, didn’t like, didn’t like at all), how easy it was (very easy, somewhat easy, somewhat hard, very hard), and if they would have liked any more privacy (much more privacy, more privacy, enough privacy as is).

The intervention included a summary “cueing sheet” for the provider (Figure 1). The cueing sheet was attached to the medical record for the provider’s use in the appointment, summarized the participant’s risk profile, and suggested possible counseling statements. All providers received a brief orientation to the use of the cueing sheets. Participants assigned to the control group completed the risk assessment and post-interview, and received the clinic’s usual care.

Discussions of risks were compared by group assignment among participants reporting IPV or smoking, with p-values obtained by Fisher’s exact tests.

All participants received a $30 gift card to a grocery or department store as compensation for completing a session. All study procedures were approved by the University of California San Francisco’s Committee on Human Research in 2006, and are under continuing review.

Results

Between June 2006 and June 2007, 286 pregnant women completed a risk assessment (Figure 2). Most women (223; 78%) reported no risks and were not randomized; 63 women (22%) reported one or more risks and were assigned to intervention or control. IPV was the most frequently reported risk (n=37), followed by smoking (n=34). Risks were not mutually exclusive; twelve participants reported both IPV and smoking. Six participants reported drug use, and three reported alcohol use. In order to focus on IPV and smoking risks and because very few participants reported drug or alcohol use, the three participants with drug use only (no IPV or smoking) and the one participant with alcohol use only were excluded from the following analyses. This paper reports on the patient–provider discussions of the 37 women who reported IPV and the 34 women who reported smoking. Characteristics of the sample are summarized in Table 1. No significant differences in characteristics were found between the intervention and control groups.

![The Health in Pregnancy (HIP) Study](image)

**The Health in Pregnancy (HIP) Study**

**Name:**

**Date:**

<table>
<thead>
<tr>
<th>In the year before the pregnancy:</th>
<th>Since the pregnancy began:</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES Physical violence by an intimate partner</td>
<td>NO Physical violence by an intimate partner</td>
</tr>
<tr>
<td>NO Forced sex by an intimate partner</td>
<td>YES Forced sex by an intimate partner</td>
</tr>
</tbody>
</table>

**Validation for this patient**
- You don’t deserve to be abused.
- I am concerned for your well-being.

**Recommendations for this patient**
- Don’t keep it a secret. Tell someone you trust.
- Contact a hotline, a social worker, or a local group to talk to.
- Don’t wait for it to get better. Try to get help – for yourself and for your baby.

**Figure 1.** Sample provider cueing sheet for IPV.
Discussions of Risks

During the risk assessment, 37 women reported experiencing IPV, 20 of whom were randomized to the intervention group, which included provider cueing. Seventeen of these intervention participants (85.0%; 95% CI = 62.1%–96.7%) reported having a discussion of IPV with their provider. Of the 17 participants randomized to the control group, four (23.5%; 95% CI = 6.8%–49.9%) reported having a discussion of IPV (Table 2).

Table 1. Characteristics of sample at risk

<table>
<thead>
<tr>
<th></th>
<th>Intervention (n=32)</th>
<th>Control (n=27)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean age, y (SD)</strong></td>
<td>27.4 (6.4)</td>
<td>27 (6.6)</td>
</tr>
<tr>
<td><strong>Race/ethnicity, n (%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic/Latina</td>
<td>10 (31)</td>
<td>5 (19)</td>
</tr>
<tr>
<td>Black or African American</td>
<td>11 (34)</td>
<td>9 (33)</td>
</tr>
<tr>
<td>White</td>
<td>5 (16)</td>
<td>9 (33)</td>
</tr>
<tr>
<td>Other or multiple races</td>
<td>6 (19)</td>
<td>4 (15)</td>
</tr>
<tr>
<td><strong>Educational attainment, n (%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school diploma</td>
<td>7 (22)</td>
<td>7 (26)</td>
</tr>
<tr>
<td>High school diploma or GED</td>
<td>23 (72)</td>
<td>17 (63)</td>
</tr>
<tr>
<td>College degree</td>
<td>2 (6)</td>
<td>3 (11)</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Pregnancy history, n (%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never pregnant</td>
<td>4 (13)</td>
<td>8 (30)</td>
</tr>
<tr>
<td>Previously pregnant</td>
<td>28 (88)</td>
<td>19 (70)</td>
</tr>
<tr>
<td><strong>Risk profile, n (%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking</td>
<td>19 (59)</td>
<td>15 (56)</td>
</tr>
<tr>
<td>Intimate partner violence</td>
<td>20 (63)</td>
<td>17 (63)</td>
</tr>
</tbody>
</table>

*Not mutually exclusive.
GED, general educational development test; SD, standard deviation.

Discussions of Risks

Smoking was identified as a risk in 34 participants, and 19 were randomized to intervention. All 19 intervention participants (100%; 95% CI = 82.3%–100%) reported having a discussion of smoking with their provider. Of the 15 control participants, nine (60%; 95% CI = 32.2%–83.6%) reported having a discussion of smoking.

Helpfulness of Patient–Provider Discussions of Risks

Of the 21 participants who discussed IPV with their provider, 19 rated the discussion as helpful, and only two rated the discussion as not helpful. Of the 28 participants who discussed smoking with their provider, 25 rated the discussion as helpful, and three rated the discussion as not helpful.

Acceptability of the HIP Program

All 37 participants who reported IPV responded that they liked using the computer program. All 37 also responded that they found the program easy. Thirty-three participants responded that they had enough privacy, and four responded that they would like more.

Of the 34 participants who reported smoking, only one responded that she did not like using the computer program. All 34 responded that they found the program easy. Thirty-one participants responded that they had enough privacy, and three responded that they would like more.

Discussion

This study identified potentially important differences in provider behaviors as a result of cueing based upon pre-visit assessments. Similar high prevalences of IPV (13%) and smoking (12%) were found in the sample of pregnant women, and providers were very willing to discuss smoking with their patients. With provider cueing, 100% of smokers in the intervention group had discussions of the risk with their provider. Even without provider cueing, 60% of the control group had discussions about smoking. In contrast, only four (23.5%) of the 17 control-group participants reporting IPV had a
discussion with their provider. With provider cueing for intervention participants, however, the intervention was able to increase discussions of the risk to 85% of patients reporting IPV.

The HIP computerized assessment helps circumvent providers’ barriers to routine screening for IPV and identify an important risk that otherwise might go undetected. With provider cueing, the program is also able to increase significantly discussions of violence in a woman’s life. This study suggests that simple interventions such as cueing providers can increase discussions of sensitive topics. Furthermore, these findings suggest that patients consider these prompted discussions to be helpful. In the past, providers expressed discomfort and doubt about discussing smoking, now routine in current practice; with provider cueing, perhaps discussions of IPV violence will follow a similar path.28

The principal limitation of this study is that the data were obtained via self-report and may be subject to reporting biases. The study researchers were unable to validate participant self-reports of IPV and smoking, but remain confident that computers can elicit greater disclosure of sensitive behaviors than do traditional methods.29

Identification and discussions of IPV are the first steps toward addressing the risk. Although providers frequently feel powerless to affect the societal problem of IPV, a previous study found that patients often report that just discussing it is helpful.30 Risk assessment with provider cueing is a promising adjunct to prenatal providers’ efforts to address IPV.

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References