

## Selected papers from the 28th Annual Scientific Meeting of the AMERICAN GYNECOLOGICAL AND OBSTETRICAL SOCIETY

Department of Obstetrics and Gynecology • Columbia University Medical Center  
622 West 168 St., PH 16-28 • New York, NY 10032 • [www.agosonline.org](http://www.agosonline.org)  
Phone 212-305-2977 • Fax 212-342-2717  
Contact: Lama El Dana • [le2199@columbia.edu](mailto:le2199@columbia.edu)

**President** Robert Resnik, MD • **President-Elect** Haywood L. Brown, MD  
**Secretary** Mary E. D'Alton, MD • **Assistant Secretary** Larry J. Copeland, MD  
**Treasurer** Donald R. Coustan, MD • **Immediate Past President** James E. Ferguson II, MD

**Next annual meeting** October 7–9, 2010, Napa Valley, CA



### PRESIDENTIAL ADDRESS

## Why doesn't SOMEBODY do something?

James E. (Jef) Ferguson II, MD, MBA

Good afternoon. It is a great honor to be the president of the American Gynecological Society and to have served on the council for the past 8 years. It is indeed my pleasure to give my presidential address to you.

Contemplating this address, I considered a variety of different topics and found myself in the position of considering 3 or 4 topics to present. As I often do when I need valuable input into decision making, I turned to Lynn (my wife) for her advice. She said, "It's simple: choose the topic that you feel most strongly about."

That advice helped tremendously. Although I was strongly considering topics that have been an important part of my academic career, such as preterm labor and the pharmacologic management thereof, as well as prenatal diagnosis, and more recently issues related to leadership, or the recent cultural change within

the American Gynecological and Obstetrical Society, I immediately knew that my presentation would relate to intimate partner violence (IPV) and its unacceptable consequences on women.

IPV was largely ignored in our society prior to the 1970s. At that time the women's liberation movement focused attention on the many forms of violence, and specific names were introduced (eg, date rape, sexual harassment, and others).<sup>1</sup> Although progress has been made in the understanding and recognition about IPV in the past 30 or more years, significant sociocultural barriers continue for abused women to seek or receive help. These include the patriarchal and sexist attitudes and practices that exist in American society today, particularly gender role socialization<sup>2</sup> and a normative acceptability of violence perpetrated against women.<sup>3</sup>

Violence persists in our society and is a dominant consideration in our television shows and advertisements, children's games, sporting events, literature, and music. Indeed, the United States has been classified as a rape-prone culture.<sup>4</sup> In 1991, Surgeon General Everett Koop declared violence to be a public health epidemic.<sup>5</sup> Since that time, an increase in funding in primary and secondary prevention as well as research efforts to study the diverse implication of this vexing problem followed.

IPV has been defined in many different manners by various groups and in studies in the literature. It is defined as actual or threatened physical, sexual, psychological, or stalking violence by current or former intimate partners (whether of the same sex or opposite sex) by the Centers for Disease Control and Prevention (CDC).<sup>6</sup>

Another definition is that outlined by the American Medical Association in their treatment guidelines on domestic violence. In those guidelines, IPV is defined as a "pattern of coercive behaviors that may include repeated battering and injury, psychological or emotional abuse, sexual assault, progressive societal isolation, economic deprivation, intimidation, and stalking.

These behaviors are perpetrated by someone who is or was involved in an intimate relationship with the victim."<sup>7</sup> As can be noted from each of these definitions, men too can be the victims of IPV.

Because of considerations that will be developed more completely in the following text, it is difficult to determine the exact background prevalence of IPV. In nearly all studies, it is evident that although IPV affects both sexes, irrespective of which index of severity we consider, women are disproportionately affected and suffer more severe consequences than men.

From the Department of Obstetrics and Gynecology, University of Virginia School of Medicine, Charlottesville, VA.

Presented at the 28th Annual Scientific Meeting of the American Gynecological and Obstetrical Society, Chicago, IL, Sept. 11, 2009.

Received Jan. 7, 2010; accepted Feb. 2, 2010.

Reprints not available from the authors.

0002-9378/free

© 2010 Mosby, Inc. All rights reserved.

doi: 10.1016/j.ajog.2010.02.005

To date, the study by Breiding et al<sup>8</sup> provided us with the best estimates of the prevalence and risk factors of IPV within the United States. In that study, noninstitutionalized adults aged older than 18 years who were participating in a random digit dialed (RDD) telephone survey developed by the CDC to provide telephone survey (behavioral risk factor surveillance system [BRFSS]) also completed an IPV module.

To determine the prevalence of physical violence, respondents were asked: "(1) Has an intimate partner ever threatened you with physical violence? This includes threatening to hit, slap, push, kick, or hurt you in any way; (2) has an intimate partner ever attempted physical violence against you? This includes times when they tried to hit, slap, push, kick, or otherwise hurt you, but they were not able to; or (3) has an intimate partner ever hit, slapped, pushed, kicked, or hurt you in any way?"

In this study, 19.2% of women reported threatened physical violence over their lifetime, 14.5% reported attempted physical violence, and 20.2% reported completed physical violence. The respective percentages for men were 8.7%, 10.3%, and 10.7%.

To determine the prevalence of sexual IPV, the respondents were asked: "Have you ever experienced any unwanted sex by a current or former intimate partner? Unwanted sex was defined with the following statement: "Unwanted sex includes things like putting anything into your vagina (a female), anus, or mouth or making you do things to them after you said or showed that you did not want to. It includes times when you were unable to consent (for example, you were drunk or asleep or you thought you would be hurt or punished if you refused)."

Prior to the administration of the questions, an intimate partner was defined as "any current or former spouse, boyfriend, or girlfriend; someone you dated would also be considered an intimate partner." The frequency of unwanted sex for women was 10.2% as compared with 1.5% for men. The lifetime prevalence rates for women for physical and sexual abuse was 26.4%

compared with 15.9% for men, whereas the lifetime prevalence for completed physical and/or sexual violence for women was 23.6% compared with 11.5% for men.

Respondents who reported any experience of physical violence or unwanted sex by an intimate partner were also asked the following: In the past 12 months, have you experienced any physical violence or had unwanted sex with an intimate partner? Respondents who reported physical or sexual IPV within the past 12 months were asked: In the past 12 months, have you had any physical injuries, such as bruises, cuts, scrapes, black eyes, vaginal or anal tears, or broken bones as a result of this physical violence or unwanted sex? Within the past 12 months, the prevalence of completed physical and/or sexual violence was 1.4% in women compared with 0.7% in men.

As might be expected, rates of abuse varied based on race/ethnicity, age, income, and education. Although sobering, these data likely underestimate the true prevalence of IPV. Because of the limited number of questions that could be asked in such a survey, questions regarding emotional abuse were eliminated. Thus, the data did not include emotional abuse.

In addition, not all respondents who completed the BRFSS core completed the subsequent IPV module. These patients tended to be female and of ethnic/racial minority, to have a lower income, to be less educated, and were older than those who completed the entire survey. Each of these characteristics, with the exception of advanced age, was shown in the data to be associated with a higher prevalence of IPV, again suggesting the data underestimate the true prevalence of IPV.

Another reason that these data underestimate the prevalence of IPV is associated with the methodology of the study, which used an RDD telephone study. Therefore, it is difficult to survey those not living in a stable household residence (for instance, those in prisons, nursing homes, military bases, college dorms, shelters, homeless and transience popu-

lations, or those without a land-line telephone).

To determine the prevalence of IPV based on specific patient populations, McCloskey et al<sup>9</sup> used written surveys to assess prevalence rates across 5 medical specialties at 8 different health care facilities in a large American city and its environs. Rates of lifetime IPV victimization ranged from 26% among women in primary care to 73% among women in addiction recovery programs. Thirty-five percent of obstetrics and gynecology patients reported IPV by a partner. Regarding current abuse, 13% of women seeking care in obstetrics and gynecology, 9% of women primary care patients, 17% of women patients in emergency departments, and 36% of women patients in an additional recovery program reported ongoing IPV.<sup>9</sup>

Although the rates of IPV in the United States are alarming, the worldwide rates are of even greater concern. Women aged 15-49 years of age completed standardized population-based household surveys in 15 sites in 10 countries worldwide. Those who had ever had a male partner were asked in private about their experiences of physically and sexually violent and emotionally abusive acts. The reported lifetime prevalence of physical or sexual partner violence or both varied from 15% to 71%, but 2 sites had a prevalence of less than 25%, 7 between 25% and 50%, and 6 between 50% and 75%. Between 4% and 54% of respondents reported physical or sexual partner violence, or both, in the past year. Men who were more controlling were more likely to be violent toward their partners.<sup>10</sup>

The consequences of IPV are staggering and can be considered within the categories of immediate and longer term. Each year in the United States, it is estimated that 4.5 million women are assaulted by their intimate partners.<sup>8</sup> Forty-one percent of those assaults cause observable injuries, and 519,031 of the assaults (28.1% of those injured) require medical care.<sup>1</sup> The types of injuries that women suffer at the hands of their intimate partners range from minor injuries (such as scratches, bruises, and welts) to death.

IPV resulted in 1544 deaths in 2004. Of these deaths, 75% occurred in females.<sup>11</sup> Between 1976 and 1996, 30% of femicides in the United States were at the hands of intimate partners.<sup>12</sup> Other common injuries that result from IPV include broken bones, broken teeth, burns, bullet wounds, lacerations, knife wounds, and sore muscles. Approximately 67% of women who visit emergency rooms after IPV have symptoms of a head injury; 30% of IPV victims have suffered a loss of consciousness at least once.<sup>1</sup>

It has been estimated that approximately 68% of victims of domestic violence are strangled at least once; the average is 5.3 times per victim.<sup>13</sup> Strangulation is undoubtedly so common because it is particularly terrifying to the victim.<sup>1</sup> If the woman survives the index episode of IPV, she is at increased risk for a variety of longer-term life-altering consequences.

IPV may directly or indirectly influence a range of mental health conditions and other longer-term health consequences. Because physical assaults are highly likely to produce anxiety and fear of pain, injury, and even death, posttraumatic stress disorder has been frequently assessed in battered women. Kesler et al<sup>14</sup> established a mean prevalence of posttraumatic stress disorder of 63.8% in women who survived physical violence, and Kemp et al<sup>15</sup> noted that the odds ratio for violence and this disorder was 2.87. A mean prevalence of depression in surviving physically abused women of 47.6% was noted in a metaanalysis in 1999.<sup>16</sup> Moreover, the works of several authors appear to establish a temporal length between battering and depression,<sup>17</sup> thus strengthening the causal connection between physical IPV and depression.

Suicidality, including both ideation and attempts, seems well established as linked to IPV with a weighted mean odds ratio of 3.55,<sup>18</sup> although the prevalence of approximately 18% is lower than that of posttraumatic stress disorder or depression. Sexual violence has also been associated with an increased incidence of depression. Coker et al<sup>19</sup> noted that sexual IPV alone is even more strongly asso-

ciated with depression than physical violence alone.

IPV has also been associated with risky behaviors. Women who have suffered IPV are more likely to smoke than non-abused women<sup>8</sup> and to be current smokers.<sup>20</sup> Women who experienced recent or lifetime IPV are more likely to report problem drinking or drinking every day.<sup>21</sup> In the study by McCauley et al,<sup>22</sup> a mean prevalence rate of approximately 9% for drug abuse/dependence was noted among women experiencing IPV, which is less than that associated with alcohol problems.

IPV also influences sexual risk-taking behaviors. Among women attending a public sexually transmitted infection clinic, those who had experienced IPV in the last 12 months were more likely to report alcohol or other drug use before last sexual intercourse and having a non-monogamous sex partner.<sup>23</sup> In women studied who had domestic violence protective orders, nearly 98% engaged in at least 1 risky sexual behavior with the partner against whom they had the protective order.<sup>24</sup>

There are numerous longer-term consequences to physical health in survivors of IPV. Not unexpectedly, IPV has been noted to be associated with sexually transmitted infections (STIs). Three studies have reported that sexual IPV was more strongly associated with a history of an STI than was physical or psychological abuse.<sup>25</sup> Also, Tubman et al<sup>26</sup> found that increasing numbers of abuse experiences were associated with ever having had an STI for men and women.

It is difficult to determine the temporal sequence of associating IPV and STI because most studies were cross-sectional. However, 5 studies did address both lifetime and current STI status to better time frame exposure-outcome sequencing. From these studies IPV was more strongly associated with having a history of an STI than with current STI.<sup>27,28</sup>

IPV has consistently been associated with a variety of adverse gynecological outcomes including an increased risk of chronic pelvic or abdominal pain<sup>29</sup> as well as painful menses and dysmenorrhea.<sup>30</sup> Lack of sexual pleasure or sexual

dysfunction has likewise been associated with IPV<sup>29</sup> as has the risk of having an abnormal Papanicolaou test or cervical dysplasia.<sup>31</sup> Campbell et al<sup>25</sup> noted that sexual abuse was more strongly associated with painful intercourse than was physical abuse.

IPV has also been associated with menstrual irregularity, including excess of bleeding and/or endometriosis.<sup>27</sup> Two studies found an association between IPV and hysterectomies.<sup>28,30</sup> Women experiencing IPV find contraception more difficult to navigate because of partner interference.<sup>32</sup>

With the exception of the largest study,<sup>30</sup> IPV has consistently been associated with heart disease. Additionally, IPV has been correlated with ever having a stroke or symptoms consistent with a stroke.<sup>8</sup> Tiwari et al<sup>33</sup> noted that lifetime IPV strongly correlated with poorer current quality of life, suggesting the persistent effect of IPV in cases long after women have left an abusive relationship.

The studies addressing the association of chronic disease and IPV have found that IPV was associated with an increase in the number of symptoms and generic physical symptoms.<sup>34</sup> Likewise, IPV has consistently been associated with gastrointestinal disorders, including inflammatory bowel syndrome,<sup>30</sup> chronic fatigue syndrome,<sup>35</sup> and arthritis.<sup>8</sup> Loxton et al<sup>30</sup> noted that IPV was associated with an increased risk of cervical cancer, and we have noted the association between IPV and a later stage of diagnosis of women's cancers, including cervical, endometrial, ovarian, and breast.<sup>36</sup>

For obstetrician-gynecologists perhaps the best-known adverse consequences of IPV are those associated with pregnancy. Unfortunately, pregnancy puts a woman at increased risk of IPV. Researchers<sup>37</sup> reported that pregnancy increased the risk of experiencing violence by a factor of 2.11. Approximately 4-8% of women are physically abused at least once during pregnancy;<sup>38</sup> the woman's abdomen is a frequent target for punching and kicking by the assailant in an attempt to damage the fetus.

IPV has been shown to be significantly associated with unintended pregnancies,<sup>39</sup> and women seeking abortions

show elevated rates of IPV compared with the general population.<sup>40</sup> Studies have shown that physical abuse during pregnancy delays prenatal care by an average of 6.5 weeks<sup>41</sup> and can also result in an increased risk of miscarriage.<sup>42</sup> Furthermore, most published studies that address IPV as the primary exposure noted a significant association with perinatal death<sup>43</sup> and a significant increase in low birthweight infants.

Hospitalization during pregnancy was correlated with IPV in the majority of studies,<sup>19,44</sup> and postpartum depressive symptoms have been associated with IPV in the majority of studies.<sup>33</sup> Sadly, pregnant women abused by their partner are more likely to be murdered than nonpregnant abused women.<sup>45</sup>

Aside from the aforementioned health considerations, IPV is costly beyond the tears and agony associated with adverse health consequences. The economic consequences are dramatic. Approximately one-sixth (about 742,000) of the victims of IPV each year lose time from paid work as a result of the assaults.

There is also a loss of daily earnings as well as a cost to replace the woman's work at home. Women who experience IPV have more annual health care visits and higher annual health care costs.<sup>46</sup> Estimates of the annual costs of IPV range from \$2.3 billion to \$7.0 billion for direct health care costs; the indirect costs of lost productivity are approximately \$1.8 billion.<sup>47</sup> Even if the violence stops and the woman survives, health care costs for women who experience IPV remain elevated.<sup>48</sup>

At this point, I hope that the reader will agree that IPV occurs at a high frequency and is associated with unacceptable and significant immediate and longer-term mental and physical health consequences. It is perhaps logical to ask questions such as, can we screen/query women to identify current or past IPV so we can intervene in an effort to affect more favorable outcomes and what guidelines exist and, if so, what guidelines exist to help shape our clinical practices?

Currently, there is no unanimity in the recommendations for screening for IPV. In 1992, the American Medical Association

recommended that all adult women entering the primary care setting be screened, regardless of the reason for presentation.<sup>7</sup> Conversely, the US Preventive Services Task Force in 2004 concluded "there is insufficient evidence to recommend routine screening for family violence to include abuse of women, children, or the elderly."<sup>49</sup>

Whereas there are divergent opinions about routine screening for IPV, there is no divergence in the need to ask a patient about IPV if she presents with signs or symptoms that may be associated with IPV. Given the protean manifestations and associations of IPV, this means, from a practical standpoint, that a significant number of women patients would be appropriate candidates for screening. Given the recommendations of the American College of Obstetricians and Gynecologists, I believe it is incumbent on obstetricians and gynecologists to routinely screen all women in their practices regardless of signs or symptoms.<sup>50</sup>

Many of those who advocate for routine screening believe that the Preventive Service Task Force makes incorrect assumptions about the endpoints of screening in determining its value. Moreover, they believe that there is a therapeutic value associated with screening, in and of itself. It should also be noted that in Canada, the United Kingdom, and many other countries, routine screening for IPV is encouraged.

Given the unique role that we play in women's lives as their women's health care specialists, it may be of interest to ask, "What education and training do obstetrician-gynecologists receive in relation to intimate partner violence?" During postgraduate education obstetrician-gynecologists are provided direction for their educational efforts by the American Board of Obstetricians and Gynecologists as well as the Council on Residency Education of Obstetrics and Gynecology.

For the office practice section of the written examination specifically related to prevention/primary care, domestic violence and sexual assault is listed in the blueprint as a major area for emphasis on the examination. Moreover, in instructions for case preparation for the oral ex-

amination, 2 of the office practice categories are "sexual assault" and "spousal abuse."

The learning objectives are also outlined in the *Educational Objectives, Core Curriculum in Obstetrics and Gynecology*, ninth edition.<sup>51</sup> In the unit entitled Primary and Preventive Ambulatory Health Care in the section, Periodic Health Assessment, in which objectives are listed to "perform routine screening for selected diseases," for women 13-64 years old, it outlined that residents should learn to "evaluate psychosocial well-being, including issues regarding abuse." In unit 5 in the section on pediatric and adolescent gynecology (birth to menarche), it is stated that residents in training should "describe gynecologic problems experienced by pediatric patients such as ... sexual abuse" and further "to perform a forensic examination (including appropriate laboratory tests) to evaluate sexual abuse."

In the special gynecologic conditions section of unit 2 in the section Crisis Intervention, it is stated that "the obstetrician-gynecologist should be able to identify an abused woman, provide immediate medical evaluation and treatment for her, and, if indicated, assist with referrals for legal assistance and psychological counseling.

Specific objectives include: (1) discuss the principal types of violence against women of all ages (incest, rape, physical abuse, and psychological abuse); (2) elicit a pertinent history from a possible victim of physical, psychological or sexual abuse; (3) perform focused mental status examination and physical examination to detect findings of physical, psychological, or sexual abuse; (4) describe the appropriate legal safeguards that must be observed in evaluating a victim of abuse, such as maintaining the proper chain of evidence in handling laboratory specimens and reporting the crime to the appropriate authorities; (5) perform or order selected laboratory tests to evaluate a victim of abuse; (6) provide immediate treatment for victims of abuse, including prophylaxis for STIs and post-coital contraception; and (7) provide appropriate follow-up care and referrals for victims of abuse.

The American College of Obstetricians and Gynecologists has provided robust practice guidelines related to screening for IPV for practicing obstetricians–gynecologists. For instance, in committee opinion number 343 (psychosocial risk factors: prenatal screening and intervention),<sup>50</sup> the following recommendation is given: Psychosocial screening of all women seeking pregnancy evaluation or prenatal care should be performed, regardless of social status, educational level, race, and ethnicity. Furthermore, it is better to perform psychosocial screening at least once each trimester to increase the likelihood of identifying important issues and reducing poor birth outcomes. There is evidence that women who are screened for psychosocial issues once each trimester are half as likely as women who are not screened to have a low birthweight or preterm baby.<sup>52</sup>

Additionally, in the patient care section of the Guidelines for Women's Health Care, it is stated that "clinician responsibilities in addressing IPV and domestic violence include the following: implement universal screening, acknowledge the trauma, assess immediate safety, help establish a safety plan, review options, offer educational materials, offer a list of community and local resources, provide referrals, document interactions, provide ongoing support at subsequent visits."<sup>53</sup>

It thus appears that our professional organizations have clearly outlined learning objectives and practice requirements for IPV. A natural question at this juncture may be "how do we as obstetrician-gynecologists perform in screening for and the secondary prevention of intimate partner violence?" Secondary prevention is defined herein as "activities aimed at early disease detection, thereby increasing opportunities for interventions to prevent progression of the disease and emergence of symptoms."

We will review the performance of screening for IPV within the context of pregnant and nonpregnant patients, various health care settings, and by specialty. While reviewing screening performance for IPV, it should be kept in mind that the published studies are typically

questionnaire based surveys and do not represent actual chart reviews. Most of the data has been obtained from primary care physicians, and overall, the results can be categorized as "less than reassuring."

Rodriguez et al<sup>54</sup> queried family physicians, internists, and obstetrician and gynecologists as to their screening practices. The frequency of routine screening for new patients, periodic visits, and patients receiving prenatal care were 10%, 9%, and 11%, respectively. Overall, 79% of the physicians routinely screened women for IPV in the setting of injury. The frequency of screening by health maintenance organization physicians was 1%, by obstetricians and gynecologists, 17%; and by physicians who worked in public clinics, 36%.

Similar results were published by Chamberlain and Perham-Hester<sup>55,56</sup> when evaluating screening practices of family physicians, internists, obstetricians and gynecologists, and general practitioners. Fully 86% screen "often or always" if a woman presented with an injury, whereas screening was performed "often or always" at initial visits and annual examinations in 6.2% and 7.5% of patients, respectively.

In a subsequent "presentation," Chamberlain and Perham-Hester<sup>55,56</sup> indicated that the screening frequency was similar among specialties (however, the study was likely underpowered to have found a difference should it have existed) and indicated that screening occurred at 17% of initial prenatal visits and 5% during return prenatal visits. These authors raised the important question as to the possibility of screening being over reported on the basis of a social desirability bias. To date, the largest study was reported by Elliott et al<sup>57</sup> in a national systematic sampling of 2400 obstetricians and gynecologists, emergency room physicians, internists, and family medicine physicians. It was noted that 6% of physicians screened all women and obstetricians and gynecologists screened 20% of their patients.

Finally, Sitterding et al<sup>58</sup> through the Virginia Department of Health Center for Injury and Violence Protection surveyed 516 practicing family physicians

## TABLE

## Possible barriers for physicians

Possible barriers for physicians<sup>54-57,61</sup>

Belief that "someone else will take care of it"

Forgetfulness

Not a physician's responsibility/role

IPV "should be private"

"Can not offer much"

Lack of scientific evidence that screening improves outcomes

Cynicism: "nothing will happen"

Legal entanglement

Worry about offending/angering patients

Screening will take too much time

Insufficient training

Uncertainty about training requirements

Uncertainty about legal implications if screen is positive

Uncomfortable discussing issues of IPV

"Do not need to ask; the patient will volunteer the information"

Beliefs about victims of spouse abuse

Fear of retaliation against patient

Frustration over lack of patient disclosure

Not scientific, "sexy"

IPV, intimate partner violence.

Ferguson. *Why doesn't SOMEBODY do something?* *Am J Obstet Gynecol* 2010.

and obstetricians and gynecologists. Overall, family physicians reported 9.7% of women screened, whereas obstetricians and gynecologists reported screening 25.3% of their patients.

As noted in the studies cited earlier, screening for IPV is not a frequent event in most physicians' offices. Whereas obstetrician-gynecologists appear to perform screening at rates greater than other specialties, screening is still not prevalent. It is likely therefore, that barriers that result in the relatively low rates of screening for intimate partner violence exist.

In the Table, I have outlined some of the possible barriers for IPV screening for physicians. The role of some of these barriers has been addressed in several studies. Rodriguez, et al<sup>54</sup> categorized

major barriers to physician identification of intimate partner abuse and referral of patients into 3 categories: (1) patient-related barriers, (2) mutual barriers, and (3) provider-related barriers. Eighty-two percent of physicians believe that the patient's fear of retaliation was a barrier, 78% "lack of disclosure," 55% "fear of police involvement," and 52% "lack of follow-up." When components of "mutual barriers" were evaluated, "cultural difference," "lack of privacy," and "language differences" were felt to be barriers by 56%, 48%, and 39% of physicians, respectively.

In the assessment of provider-related barriers, these authors noted that 39% of physicians cited "lack of training," 37% "lack of time," 30% "lack of resources/referrals," and 18% "a sense of inefficacy." Physicians who had received training in the past 3 years in intimate partner abuse were less likely to report the lack of information about local community agencies as a major barrier (17% vs 33%) compared with those who had not received recent education. Perceived barriers were not consistently associated with physician specialty, sex, or reported screening practices.<sup>54</sup>

In the study by Elliott et al,<sup>57</sup> higher screening rates were associated with a greater estimated prevalence of IPV in the physician's patient population, IPV training in the last 12 months or previously, and confidence in one's ability to recognize victims. Conversely, lower screening rates were associated with beliefs that the patient would volunteer the information as well as forgetting to ask the patients.

Sitterding et al<sup>58</sup> concluded that spouse/partner violence education in any stage of education was associated with a greater likelihood to screen all patients and that if IPV education had been provided during residency, the physician was 3 times more likely to screen for IPV. Conversely, Chamberlain and Perham-Hester<sup>55,56</sup> in studies of pregnant and nonpregnant women concluded that only the belief of responsibility to screen and perceived IPV prevalence rates were predictive of screening behavior; prior training was not predictive. Jaffee et al<sup>59</sup> noted that the domain of practice-based policies and procedures

was predictive of reduced barriers to physicians screening.

The importance of a strong practice commitment to IPV screening, specific policies for IPV screening in the office, and ready access to professional support and management of IPV cases were noted. Moreover, physicians who practiced in clinics and hospitals were found to have fewer barriers to IPV screening than physicians in private practice.

In a study to assess "perceived preparedness" to provide preventive counseling Park et al<sup>60</sup> surveyed 928 final-year primary care residents (internal medicine, family practice, and obstetrics and gynecology at 162 US academic health centers). The residents were queried and overall felt better prepared to counsel about smoking (62%) and diet and exercise (53%) than about depression (37%), substance abuse (36%), or IPV (21%). In the study obstetrics and gynecology residents were self-identified as being better prepared to counsel about IPV compared with graduating residents in internal medicine or family practice.

Thus far, we have learned that IPV is unfortunately very common and that it has direct short- and long-term health effects for our patients. Furthermore, our professional organizations support asking patients about IPV, and training physicians to screen for IPV does improve screening rates. So the obvious question at this juncture is, "Why doesn't SOMEBODY do something ... to reduce the frequency of IPV?" The following are recommendations for what we can do to reduce IPV and its health effects for our patients.

## Recommendations

### Clinical

- Empower obstetricians and gynecologists to screen all patients for both current and past IPV.
  - Develop a collaborative practice/office environment with nurses and staff.
- Identify appropriate community resources for patients and invite representative to visit obstetrics and gynecology clinics and inform health care providers of their services.

- Provide templates for clinics and communities to use to catalog various resources (eg, police, rape crisis centers, shelters, etc).
- KISS (Keep It Simple, Stupid). Assist obstetricians and gynecologists in the implementation of a simple system for screening (preferably electronic) with linkage for referrals when appropriate. Encourage all obstetricians and gynecologists to screen for both current and past IPV. Ideally, this would be implemented in the practice setting in a collaborative fashion with nurses and other office personnel. A range of different screening modalities may be used ranging from having patients answer screening question directly on a computer, completing a paper check list, to health care providers directly asking screening questions in a private setting. Performance in this arena should be monitored by periodic assessments in which documentation and charts are reviewed to ensure screening is indeed occurring.

Additionally, obstetrician and gynecologists should take the lead in coordinating personnel from various community resources that are crucial providers when referrals are made. Information about the availability of the community resources should be disseminated to providers caring for women. Having meetings with those providers of community resources to build rapport and confidence between these 2 groups of providers further improves the likelihood that appropriate referrals are made and that women receive the counseling that they need.

Following the KISS principle, obstetricians and gynecologists should lead in implementation of a simple system for screening as well as provide templates to providers and communities to catalog various resources. Ideally, screening questions related to IPV would be incorporated into an electronic medical record and information can be obtained by the physicians themselves or more likely by nurses or other office personnel and subsequently entered into the electronic medical record.

Increasingly, however, computers at kiosk stations or in examination rooms have been used to screen the patients. An introduction to screening might include

a statement such as, "Because we care about your safety and health, we are introducing a new set of questions to help us provide the best care we can and to help meet the needs for your own life situation." If your state has mandatory violence reporting laws, patients need to be informed that IPV disclosure will result in her case being reported.

Templates should be succinct and provide information for specific referrals. For example, if a woman answers yes to having ever been sexually abused, the appropriate referral would be to the local rape crisis centers. Having knowledge about what services are offered and possible costs are very helpful to provide to patients.

### Education and training

- Educate about prevalence and the mental and physical consequences of past or current IPV.
- Because training does improve screening and referral competence and actual screening behaviors, provide increased IPV training in:
  - Medical school.
  - Residency training
- All training should be performed with state/region/locality-specific tools and resource material.
- Ongoing continuing medical education efforts.
- Consider partnering with the Academy on Violence and Abuse to support training in medicine on Violence Against Women ([www.avahealth.org/](http://www.avahealth.org/)).

It is important to educate providers and their office staff about the prevalence and the mental and physical consequences of past or current IPV. Because training does improve screening, referral competence and actual screening behaviors, it is critical to provide increased IPV training in medical school and during residency training. Training should be of an experiential nature to be maximally meaningful.

Implementation and compliance with this recommendation in obstetrics and gynecology residency training programs could be assessed by the development of a question on the PIF such as "describe the process and environment in which residents in your program learn to screen for intimate partner violence, provide

counseling, interact with community agencies, and become knowledgeable about associated state legal requirements. Provide an example of the screening tool and community resource referral materials to the site visitor."

It is likely that residents will be much more comfortable to screen when they enter practice if they have had experience and training such as that outlined. All training should be performed with state/region/locality-specific tools and resource material.

Ongoing continuing medical education efforts are crucial. If local obstetrician and gynecologist advocates are not available, consideration should be given to partnering with the Academy on Violence and Abuse to support training in medicine on Violence Against Women ([www.avahealth.org](http://www.avahealth.org/)). The mission and vision of the Academy on Violence and Abuse is to advance health education and research on the prevention, recognition, treatment, and health effects of violence and abuse.

### Research

- Empower obstetricians and gynecologists to be advocates for women's health research on violence against women.
- Encourage more obstetricians and gynecologists to develop research careers in this area.

This could be accomplished by the selective solicitation by the American Association of Obstetricians and Gynecologists Foundation, Reproductive Scientist Development Program, Building Interdisciplinary Research Careers in Women's Health, or other training grants. A review of the current bibliometrics reveals a paucity of obstetrician and gynecologist investigators.

- Champion transdisciplinary high-quality, outcome-based research on violence against women.
- Encourage shift in the science of research in IPV from a descriptive to a paradigmatic one.
- Develop an institute of women's health in the National Institutes of Health. One method would be to mature the office of Research of Women's Health in a similar manner as is in

progress for the National Center for Minority Health and Health Disparities.

- Develop and link new women's health registries, for example, the Women's Health Registries of Michigan, Illinois, and Kentucky.
- Work with members of the Institute of Medicine to request the institute to develop and champion a white paper on violence against women.
- Encourage the leaders in our specialty to lead and participate in this process. Although these recommendations may seem daunting to some, I have every confidence that our esteemed members of the American Gynecological and Obstetrical Society can play a crucial role in their implementation. Inaction is not an option. We must fully commit ourselves to the work of ending this blight against women.

In my opinion, if we do anything less, then we should not consider ourselves to be women's health care specialists. We owe it to our mothers, sisters, spouses/significant others, daughters, and all the women in the United States who entrust us with their care and well-being. Yoda, my favorite philosopher, said it best when he provided the following wisdom to Luke Skywalker as Luke attempted to raise his X-wing fighter from the swamp on the planet Dagobah: Try? Try not! Do. Or do not. There is no try.

Again, I thank you for the honor of serving as your president for the past year. I also want to recognize and thank Lynn, my wonderful wife of 34 years, as well as 2 of our children, David and Josh, who are in attendance. Jed could not be here because of his duties at Massachusetts General Hospital. Lynn, your love and kindness have meant everything to me and given my professional time commitments the likely reason we are fortunate to have the great children we do.

I also want to thank all the members of the Council of the American Gynecological and Obstetrical Society and recognize my escorts, Drs Haywood Brown, Mary D'Alton, Bill Droegemueller, Jay Iams, Jim Martin, Eberhard Mueller-Heubach, and Paul Underwood. I have been more than fortunate to have such a wonderful group of long-term mentors, confidants, role

models, and compatriots. I wish to acknowledge the significant input and editing of the manuscript by Ann Coke, PhD, MPH, Professor, Department of Obstetrics and Gynecology, University of Kentucky School of Medicine, and the Verizon Wireless Endowed Chair of Research on Violence Against Women at the University of Kentucky. I greatly appreciate her mentoring and collaboration in this field and the opportunity to work closely together for several years at the University of Kentucky. ■

## REFERENCES

1. Chrisler J, Ferguson S. Violence against women as a public health issue. *Ann N Y Acad Sci* 2006;1087:235-49.
2. Birns B, Cascardi M, Meyer SL. Sex-role socialization: developmental influences on wife abuse. *Am J Orthopsychiatry* 1994;64:50-9.
3. Geen RG. Aggression and antisocial behavior. In: Gilbert D, Fiske ST, Linzey G. eds. *The handbook of social psychology*. Chapter 24. Boston: McGraw-Hill; 1998:317-56.
4. Rozee P. Forbidden or forgiven: rape in cross-cultural perspective. *Psychol Women Quart* 1993;17:499-514.
5. Koop CE, Lundberg GD. Violence in America: a public health emergency. *JAMA* 1992; 267:3075-6.
6. Saltzman LE, Fanslow JL, McMahon PM, Shelley GA. Intimate partner violence surveillance: uniform definitions and recommended data elements. Version 1.0. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 1999.
7. Flitcraft A, Hadley S, Hendricks-Matthews MK, McLeer SV, Warshaw C. Council on Scientific Affairs. American medical association diagnostic and treatment guidelines on domestic violence. *Arch Fam Med* 1992;1:39-47.
8. Breiding MJ, Black MC, Ryan GW. Prevalence and risk factors of intimate partner violence in eighteen US states/territories, 2005. *Am J Prev Med* 2008;34:112-8.
9. McCloskey LA, Lichter E, Ganz ML, et al. Intimate partner violence and patient screening across medical specialties. *Acad Emerg Med* 2005;12:712-22.
10. Garcia-Moreno C. Intimate-partner violence. *Lancet* 2006;368:1260-9.
11. Centers for Disease Control and Prevention (2006). Intimate partner violence: fact sheet. Available at: [http://www.cdc.gov/ncipc/dvp/ipv\\_factsheet.pdf](http://www.cdc.gov/ncipc/dvp/ipv_factsheet.pdf). Accessed March 12, 2008.
12. Greenfield L, Rand M, Craven D. Violence by intimates: analysis of crimes by current or former spouses, boyfriends, and girlfriends. Washington, DC: US Department of Justice; 1998.
13. Wilbur L, Higley M, Hatfield J, et al. Survey results of women who have been strangled while in an abusive relationship. *J Emerg Med* 2001;21:297-302.
14. Kesler RC, Sonnega A, Bromet E, Hughes M, Nelson CB. Posttraumatic stress disorder in the national comorbidity survey. *Arch Gen Psychiatry* 1995;52:1048-60.
15. Kemp A, Green BL, Hovanitz C, Rawlings EI. Incidence and correlates of post-traumatic stress disorder in battered women: shelter and community samples. *J Interpers Violence* 1995; 10:43-55.
16. Golding JM. Intimate partner violence as a risk factor for mental disorders: a meta-analysis. *J Fam Viol* 1999;14:99-142.
17. Orava T, McLeod P, Sharpe D. Perception of control, depressive symptomatology, and self-esteem in women in transition from abusive relationships. *J Fam Viol* 1996;11:167-186.
18. Vitanza S, Vogel L, Marshall L. Distress and symptoms of PTSD in abused women. *Violence Victims* 1995;10:23-34.
19. Coker AL, Davis KE, Arias I, et al. Physical and mental health effects of intimate partner violence for men and women. *Am J Prev Med* 2002;23:260-7.
20. Gerber M, Ganz M, Lichter E, Williams C, McCloskey L. Adverse health behaviors and the detection of partner violence by clinicians. *Arch Intern Med* 2005;165:1016-21.
21. Carbone-Lopez K, Kruttschnitt C, MacMillan R. Patterns of intimate partner violence and their associations with physical health, psychological distress, and substance use. *Public Health Rep* 2006;121:382-92.
22. McCauley J, Kern DE, Kolodner K, et al. The "battering syndrome": prevalence and clinical characteristics of domestic violence in primary care internal medicine practices. *Ann Intern Med* 1995;123:737-46.
23. Bauer H, Gibson P, Hernandez M, Kent C, Klausner J, Bolan G. Intimate partner violence and high-risk sexual behaviors among female patients with sexually transmitted diseases. *Sex Transm Dis* 2002;29:411-6.
24. Cole J, Logan T, Shannon L. Risky sexual behavior among women with protective orders against violent male partners. *AIDS Behav* 2007;11:103-12.
25. Campbell J, Jones AS, Dienemann J, et al. Intimate partner violence and physical health consequences. *Arch Intern Med* 2002;162: 1157-63.
26. Tubman JG, Montgomery MJ, Gil AG, Wagner EF. Abuse experiences in a community sample of young adults: relations with psychiatric disorders, sexual risk behaviors, and sexually transmitted diseases. *Am J Community Psychol* 2004;34:147-62.
27. Champion J, Piper J, Holden A, Korte J, Shain R. Abused women and risk for pelvic inflammatory disease. *Western J Nurs Res* 2004; 26:176-91.
28. Coker A, Smith P, Bethea L, King M, McKeown R. Physical health consequences of physical and psychological intimate partner violence. *Arch Fam Med* 2000;9:451-7.
29. Pikarinen U, Saisto T, Schei B, Swahnberg K, Halmesmaki E. Experiences of physical and sexual abuse and their implications for current health. *Obstet Gynecol* 2007;109:1116-22.
30. Loxton D, Schofield M, Hussain R, Mishra G. History of domestic violence and physical health in midlife. *Violence Against Women* 2006;12:715-31.
31. Coker A, Bond S, Madeleine M, Luchok K, Pirisi L. Psychosocial stress and cervical neoplasia risk. *Psychosom Med* 2003;54:644-51.
32. Gee RE, Mitra N, Wan F, Chavkin DE, Long JA. Power over parity: intimate partner violence and issues of fertility control. *Am J Obstet Gynecol* 2009;201:148.e1-7.
33. Tiwari A, Chan KL, Fong D, et al. The impact of psychological abuse by an intimate partner on the mental health of pregnant women. *Br J Obstet Gynaecol* 2008;115:377-84.
34. Diaz-Olavarrieta C, Ellertson C, Paz F, Ponce de Leon S, Alarcon-Segovia D. Prevalence of battering among 1780 outpatients at an internal medicine institution in Mexico. *Soc Sci Med* 2002;55:1589-602.
35. Patel V, Kirkwood BR, Weiss H, et al. Chronic fatigue in developing countries: population based survey of women in India. *BMJ* 2005;330:1190.
36. Modesitt SC, Gambrell AC, Cottrill HM, et al. Adverse impact of a history of violence for women with breast, cervical, endometrial, or ovarian cancer. *Obstet Gynecol* 2006;107: 1330-6.
37. Richardson J, Coid J, Petrukevitch A, Chung WS, Moorey S, Feder G. Identifying domestic violence: cross-sectional study in primary care. *Br Med J* 2002;324:274-9.
38. Gazmararian JA, Petersen R, Spitz AM, Goodwin MM, Saltzman LE, Marks JS. Violence and reproductive health: current knowledge and future research directions. *Matern Child Health J* 2000;2:79-84.
39. Coker A. Does physical intimate partner violence affect sexual health: a systematic review. *Trauma Violence Abuse* 2007;8:149-77.
40. Woo J, Fine P, Goetzl L. Abortion disclosure and the association with domestic violence. *Obstet Gynecol* 2005;105:1329-34.
41. Taggart L, Mattson S. Delay in prenatal care as a result of battering in pregnancy: cross-cultural implications. *Health Care Women Int* 1996;17:25-34.
42. Jacoby M, Gorenflo D, Black E, Wunderlich C, Eyer AE. Rapid repeat pregnancy and experiences of interpersonal violence among low-income adolescents. *Am J Prev Med* 1999; 16:318-21.
43. Taft A, Watson L. Depression and termination of pregnancy (induced abortion) in a national cohort of young Australian women: the confounding effect of women's experience of violence. *MBC Public Health* 2008;8:75.
44. Lipsky S, Holt V, Easterling T, Critchlow C. Police-reported intimate partner violence during pregnancy and the risk of antenatal hospitalization. *Matern Child Health J* 2004;8:55-63.



45. Campbell J, Lewandowski L. Mental and physical health effects of intimate partner violence on women and children. *Psychiatr Clin North Am* 1997;20:353-74.
46. Ulrich T, Cain K, Sugg N, Rivara F, Rubanowice D, Thompson R. Medical care utilization patterns in women with diagnosed domestic violence. *Am J Prev Med* 2003;24:9-15.
47. Brown D, Finkelstein E, Mercy J. Methods for estimating medical expenditures attributable to intimate partner violence. *J Interpers Violence*, epublication, 2008.
48. Rivara FP, Anderson ML, Fishman P, et al. Intimate partner violence and health care costs and utilization for children living in the home. *Pediatrics* 2007;120:1270-7.
49. Nelson HD, Nygren P, McInervey Y, Klein J. US Preventive Services Task Force. *Ann Intern Med* 2004;140:387-96.
50. American College of Obstetricians and Gynecologists Committee on Health Care for Underserved Women. Psychosocial risk factors: perinatal screening and intervention. Committee opinion number 343; 2006.
51. Council on Resident Education in Obstetrics and Gynecology. Educational objectives: core curriculum in obstetrics and gynecology, 9th ed; 2009.
52. Wilkinson DS, Korenbrot CC, Greene J. A performance indicator of psychosocial services in enhanced prenatal care of Medicaid-eligible women. *Matern Child Health J* 1998; 2:131-43.
53. Adams Hillard PJ, Berek JS, Barss VA, et al. Editorial Committee for Guidelines for Women's Health Care. Guidelines for women's health care: a resource manual, 3rd ed. Washington, DC: American College of Obstetricians and Gynecologists; 2007.
54. Rodriguez MA, Bauer HM, McLoughlin E, Grumbach K. Screening and intervention for intimate partner abuse: practices and attitudes of primary care physicians. *JAMA* 1999;282: 468-74 ([www.jama.com](http://www.jama.com)).
55. Chamberlain L, Perham-Hester KA. The impact of perceived barriers on primary care physicians' screening practices for female partner abuse. *Womens Health* 2002;35:55-69.
56. Chamberlain L, Perham-Hester KA. Physicians' screening practices for female partner abuse during prenatal visits. *Matern Child Health J* 2000;4:141-8.
57. Elliott L, Nerney M, Jones T, Friedmann P. Barriers to screening for domestic violence. *J Gen Intern Med* 2002;17:112-6.
58. Sitterding HA, Adera T, Shields-Fobbs E. Spouse/partner violence education as a predictor of screening practices among physicians. *J Contin Educ Health Prof* 2003;23:54-63.
59. Jaffee KD, Epling JW, Grant W, Ghandour RM, Callendar E. Physician-identified barriers to intimate partner violence screening. *J Women's Health* 2005;14:713-20.
60. Park ER, Wolfe TJ, Gokhale M, Winichoff JP, Rigotti NA. Perceived preparedness to provide preventive counseling. Reports of graduating primary care residents at academic health centers. *J Gen Intern Med* 2005;20: 386-91.
61. Garimella R, Plichta SB, Houseman C, Garzon L. Physician beliefs about victims of spouse abuse and about the physician role. *J Womens Health Gen Based Med* 2000;9:405-11.

## Fetal exposure to gestational diabetes contributes to subsequent adult metabolic syndrome

Thomas R. Moore, MD

The metabolic syndrome, also called the insulin resistance syndrome, was characterized by Reaven<sup>1</sup> in a 1988 Banting lecture as a combination of glucose intolerance, hyperinsulinemia, hyperlipidemia, central obesity, and hypertension. These abnormalities predispose to a significant increase of morbidity and mortality from cardiovascular disease and type 2 diabetes mellitus. The metabolic syndrome has now become epidemic in both developed and developing countries.

Obesity and diabetes have become globally epidemic. The cause of this unprecedented rise in obesity is multifactorial, with inactivity, excessive calorie intake, and genetic factors implicated. More recent data indicate that exposure to diabetes during pregnancy increases the risk of childhood and adult obesity, diabetes, and cardiovascular disease. Evidence derived from recent randomized controlled trials indicates that gestational diabetes mellitus (GDM) treatment reduces newborn obesity and therefore may contribute to reducing the global prevalence of obesity and metabolic syndrome. Current evidence detailing increases in global prevalence of obesity was reviewed together with data evaluating the effectiveness of treatment of GDM. Development of new protocols for diagnosis and treatment of GDM may reduce population obesity and cardiovascular disease.

**Key words:** gestational diabetes, insulin resistance, metabolic syndrome, obesity

From the Department of Reproductive Medicine, University of California San Diego, School of Medicine, San Diego, CA.

Presented at the 28th Annual Meeting of the American Gynecological and Obstetrical Society, Chicago, IL, Sept. 10-12, 2009.

Received Dec. 16, 2009; revised Feb. 22, 2010; accepted Feb. 22, 2010.

Reprints not available from the author.

0002-9378/\$36.00

© 2010 Mosby, Inc. All rights reserved.

doi: 10.1016/j.ajog.2010.02.059

There is now strong and convincing evidence linking childhood obesity and adult metabolic syndrome<sup>2</sup> and, more recently, linking adult insulin resistance states to utero fetal adiposity. The development of in utero fetal adiposity, which arises in response to maternal hyperglycemia during pregnancy, is correlated with the subsequent development of childhood and adult obesity and even diabetes.<sup>3</sup> Thus, when addressing the controversy of treatment or nontreatment of

gestational diabetes mellitus (GDM), it is essential to consider not only fetal and neonatal outcomes but also the downstream effects on childhood and adult health.

### Obesity: today's global imperative

Since obesity is the single most powerful risk factor for pregnant women developing GDM, understanding the current state of worldwide obesity provides a useful context in which to evaluate the