Intimate Partner Violence, Depression, and Substance Abuse in Women Presenting to Emergency Departments for Care

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ABSTRACT
The Research to Practice column is intended to elevate the research critique skills of the advanced practice nurse and to assist with the translation of research into practice. For each column, a topic and a particular research study are selected. The stage is set with a case presentation. The research paper is then reviewed and critiqued, and finally, the implications for translation into practice are discussed with particular attention to the case study. In this column, we address the topics of intimate partner violence and substance abuse, among African American women by presenting the following study: Hankin, A., Smith, L. S., Daugherty, J., & Houry, D. (2010). Correlation between intimate partner violence victimization and risk of substance abuse and depression among African American women in an urban emergency department. *Western Journal of Emergency Medicine, 11*(3), 252–256. **Key words:** alcohol, evidence-based practice, intimate partner violence, substance abuse

THE CASE
It is a quiet Sunday morning in the emergency department (ED) when a 35-year-old, African American woman presents to the ED complaining of an injury to her right arm, which she states occurred 2 days ago when she tripped and fell while walking in her neighborhood. As you begin examining her arm, she becomes very tearful and tells you to please be careful because she can feel bones rubbing when her arm moves. As you attempt to examine her arm, she screams in pain and begs you to stop. She cries throughout most of the interview, which she says is because her arm is hurting her. When you ask her how she got to the ED she says a friend dropped her off.

Your physical examination includes: Vital signs: T: 37.1 °C (99 °F); P: 102; R: 20/min; B/P 132/84. Patient is awake, alert, oriented,
and answering questions appropriately. Head, eyes, ears, nose, and throat are within normal limits except for a dark bruise on her upper lip that she says happened a week ago when she tripped over her dog in the living room. Cervical spine is nontender with full range of motion; her chest is clear; her heart rate is rapid without murmurs; her abdomen is soft and nontender. Her neurologic examination is within normal limits, and she maintains eye contact when answering questions. Her musculoskeletal examination is within normal limits except for reduced range of motion of the right arm and mild swelling of the hand distal to the injury; pulse, skin temperature, and sensation distal to the injury are all intact. You also notice bruises on her left upper shoulder and left forearm as well as bruises on both of her knees, which she says she “probably got when I bumped into the wall a few nights ago.”

You note a strong odor of alcohol on her breath, and when you ask her how much she had to drink before coming into the ED this morning, she admits to drinking 4 glasses of wine last night to cope with the pain in her arm. When you ask her why she did not come in for an examination after she fell 2 days ago, she says that she was afraid to come in because she hates hospitals and thought her arm would get better.

With assistance from the staff nurse, you cut the ring off her swollen right fourth finger and remove her clothing to allow for a more complete examination. An x-ray of the right humerus, elbow, and wrist reveal an overriding transverse comminuted fracture of the humerus in addition to a radial head fracture. You make a referral to the orthopedist on call, and after the patient is medicated for pain, a long arm Cadillac splint is applied to the right upper extremity. You recheck her neurovascular status following splint placement and find it to be within normal limits. Concerned about the number and distribution of injuries found on initial examination, you question the patient further about her social support system. In response to direct questioning, she states she feels safe at home and has a friend that is on the way to drive her home once she is discharged. Following the Alcohol Screening Brief Intervention Referral to Treatment guidelines for your department, you offer a brief intervention around alcohol use and refer her to a local support group, but you are also very concerned about the pattern of injuries you find. Could it be that she is denying that she is a victim of intimate partner violence (IPV)?

RESEARCH ARTICLE


The purpose of the study was to examine the rates of and relationships between substance abuse (including tobacco, recreational drug and alcohol), depression, IPV, and economic and social support resources among African American women presenting to an urban ED. This study was part of a larger investigation designed to evaluate the effects of providing African American women with targeted educational materials on use of social support resources and self-initiated harm-reduction strategies following discharge. Study participants came from a cross-sectional sample of African American women (ages, 21–55 years) presenting to an urban ED for any complaint and who agreed to complete a computer-based survey while waiting to be seen. The survey included demographic and general health information questions, as well as questions to assess social and economic resources; spousal abuse and depression; and alcohol, tobacco, and illicit drug use.

DESIGN, SETTING, AND SUBJECTS

This was a cross-sectional, correlation study of patient characteristics taken from a larger study conducted in a large urban ED in the
southeast United States with an average annual census of 105,000 patients. Inclusion criteria included all African American women presenting to the ED for any medical reason and able to wait in the ED for an assigned treatment room; exclusion criteria included an inability to speak English, acute intoxication, emergent medical conditions, current use of antipsychotic medication, or inability to stand for the 15 min required to complete the computer-based survey. A total of 610 (49%) of 1,250 eligible women presenting to the ED agreed to participate in the survey.

**METHODS**

Participants were recruited from the ED waiting room. Two research assistants screened and consented potential participants on Mondays, Tuesdays, and Wednesdays between the hours of 12 p.m.–8 p.m. After being consented, participants were taken to a private kiosk in the waiting area to complete an online survey using a touch screen computer. The survey was developed by the investigators and contained questions from validated questionnaires including the Index of Spousal Abuse; the Tolerance, Worried, Eye Openers, Amnesia, K(Cut) down survey (TWEAK, to assess alcohol abuse); the Hooked on Nicotine Checklist; the Drug Abuse Screening Test; and the Beck Depression Inventory II. The survey also contained questions about demographic characteristics, general health and well-being, and perceived economic and social support. Women who reported having been in a relationship during the previous year and who scored within a specified range on the Index of Spouse Abuse were considered to have a positive IPV score. Women who screened positive for IPV were compared with those who did not on a range of demographic and predictor variables using univariate statistics, t tests and chi-square test, depending on the type of data.

**RESULTS**

A total of 1,250 women were initially screened; 610 agreed to participate and completed the online survey. From this group, 430 women (69.9% of those who agreed to participate, or 34.4% of the 1,250 women initially screened) reported they had been in a relationship in the past year. Of those who had been in a relationship, 85 (20%) screened positive for IPV. Within this group, 55 women screened positive for both physical and nonphysical IPV, 12 for physical IPV only, and 18 for nonphysical IPV only. Women screening positive for IPV were found to be older ($p = .02$), less likely to have graduated from high school ($p < .01$), and to be more likely to screen positive for depression ($p < .01$), tobacco dependence ($p < .01$), alcohol ($p < .01$), and drug abuse ($p < .01$) than those who did not. Victims of IPV were also significantly more likely than others to report having economic insecurity ($p < .01$), being unemployed ($p < .01$) and lacking a support network ($p < .01$) or friends or relatives that they could stay with in an emergency situation ($p < .01$).

**LIMITATIONS AND GENERALIZABILITY OF THE STUDY**

There were several limitations with this study. First, although the investigators reportedly used validated instruments, it is unclear whether the questionnaires had been validated in an African American population. Second, as the study was carried out in an urban ED with an African American population, it is not known whether these findings would generalize to other settings or populations. Limiting the study times to 3 days a week between the hours of 12 p.m.–8 p.m. may also significantly affect the generalizability of the findings by possibly underestimating the extent of the problem. Another limitation is that the study used only univariate statistical tests to compare groups and analyze variable relationships. Univariate statistical tests are limited in the types of conclusions that can be drawn from a dataset. Multivariate tests are a more robust way to evaluate interconnections between study variables and examine group differences that can be attributed to specific
factors. For example, this study found that victims of IPV were older, had less education and less social support, and were more likely to abuse substances than women who did not screen positive for IPV. Using multivariate methods could actually control for substance use at baseline and may have shown that women who screen positive for substance use have similar levels of education, depression, and economic stability whether they screen positive for IPV or not because substance use is more strongly associated with those variables than is IPV. Finally, another possible limitation of the study is that the authors did not provide information on whether the scores used to indicate depression, substance abuse, or spousal abuse had been tested and validated in an African American female population. For all these reasons, it is possible that the results reported in this study may not be truly reflective of the actual relationships among IPV, substance use, and the availability of support networks among all women in all settings.

Dian’s Perspective: Translating the Research Into Practice

Despite the identified limitations, the results obtained in this study have important implications for Advanced Practice Registered Nurses (APRNs) caring for women presenting to EDs for care and suggest further areas for research. The prevalence of IPV in the study population was found to be 20%, which is consistent with ED rates reported by other investigators (Bonomi et al., 2006; Thompson et al., 2006). The findings indicate that IPV may be an associated problem for African American women presenting to the ED with mood disorders, substance abuse, suspicious injuries, or vague, generalized somatic complaints. Being poor, homeless, and unemployed may place women at greater risk for IPV, and the ED may be the only place where a woman at risk of IPV may be able to access care. This suggests that APRNs should consider providing information about social support resources, including information about safe shelters and counseling services, to all women at discharge in addition to more focused patient education. Counseling women about at risk behaviors is an important primary prevention strategy that APRNs can employ to assist women in reducing their risk of IPV. This study also suggests several possible avenues for future research, including using computer-based kiosk surveys in other EDs as a means to involve ED patients in research and education. A follow-up study to assess patient use of social support and health-related resources provided in the ED is needed to evaluate whether these efforts actually change patient health risk behaviors. Replicating this study in other ED settings with the same or different populations using the same instruments may strengthen the validity and reliability of the survey method and the instruments used.

In conclusion, the findings from this study suggest that APRNs must be vigilant in considering IPV as comorbidity in women presenting for care in the ED for any reason; especially when there is also evidence of substance use or poor social support networks. For EDs lacking resources to screen and counsel women at risk, providing information about available resources may increase patient access and ultimately improve health outcomes.

Susan’s Comments

This study raises interesting questions regarding the usability of the findings, and it is a good example of the need to critically appraise evidence before considering how to incorporate it into your practice. Important limitations were identified both by the authors themselves as well as Dr. Evans, primarily the specificity of the population and setting, that is, African American women in a large urban teaching hospital ED. In a rural setting with a primarily white population, to what extent would these findings be applicable? Another important limitation, which the authors failed to mention, was the fact that they used an investigator-developed survey, and although they reported some reliability data on some
of the original measurement tools from which they selected their items, they did not report any reliability or validity data for the survey used in this study.

This is not to say the findings reported here are not valid, but there may be limits to their applicability in other settings. Finally, this is one of those cases where there is limited fiscal impact and it certainly does not add any risks to the patients, yet there is the possibility that referring patients to community support agencies may end a cycle of IPV—or substance use—that could result in serious harm or even death. This kind of critical appraisal is extremely important when deciding whether or not to adopt an enhanced referral program, which in light of this study, should be recommended in every ED.

REFERENCES
