

## Evaluation of Domestic Violence Screening and Positive Screen Rates in Rural Hospital Emergency Departments

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### Abstract

**Introduction:** Although Emergency Department (ED) patients are to be screened for domestic violence (DV), not all patients are screened. The objectives of this study were to quantify rural community hospital overall ED patient DV screening rates and positive DV screen rates.

**Methods:** In this retrospective chart review, a total of 1,200 of 13,336 patient ED visits were randomly selected. Patients were excluded who presented with cardiac or respiratory arrest, mental health diagnoses, or major trauma; were transferred or arrived from long term care facilities; or were victims of sexual assault. Data was collected on demographics, language, and three key factors for DV per nurse documentation (reported physical or sexual assault, fear, and objective signs). This study was reviewed by an Institutional Review Board.

**Results:** Eighty-eight percent (N=1,056) of rural ED patients in this study sample had documentation for DV screening being completed. Of these, 2% (n=21) had documentation positive for DV. Of those positive, the majority were female (62%), English speaking (86%) patients with an average age of 29 years. Eighty-six percent reported assault, 33% reported fear, and 19% had objective signs of DV.

**Conclusions:** The overall DV screening rate of 88% supports the recommendation that all hospitals should ensure they have 100% DV screening rate compliance. The low 2% positive DV screening rate suggests the need for future research to determine DV screening barriers for both nurses and patients.

**Keywords:** Domestic Violence, Screening, Rural Hospitals, Emergency Departments

## Evaluation of Domestic Violence Screening and Positive Screen Rates in Rural Hospital Emergency Departments

Domestic violence has been a part of our society for centuries, quietly accepted, even considered legal. According to Boyle in approximately 1824, the expression ‘rule of thumb’ was derived from English law and was interpreted based upon a husband being able to legally hit his wife with a stick as long as the stick was no bigger than the diameter of his thumb (Boyle, Robinson, & Atkinson 2004). Domestic violence (DV) is defined by the United States (US) Department of Justice (DOJ) as a pattern of abusive behavior in any relationship that is used by

one partner to gain or maintain power and control over another intimate partner. It can be physical, sexual, emotional, economic, or psychological actions or threats of actions that influence another person and can include any behavior that intimidates, manipulates, humiliates, isolates, frightens, terrorizes, coerces, threatens, blames, hurts, injures, or wounds someone else (DOJ, 2011). ED admissions related to DV range from 9% (males) to 13% (females) with rates as high as 25.7% (Daugherty & Houry, 2008; Olive, 2007).

Domestic violence perpetrators include current or former significant others, family members (including in-laws, step-family and foster family members), and caregivers of the elderly or persons physically, cognitively, or mentally disabled (National Coalition Against Domestic Violence, 2010). In 2002, 21.5% of all US murders were committed within the family (Durose, et al., 2005). More than three women a day are murdered by their husbands or boyfriends in the U.S. and one in three adolescent girls are a victim of physical, emotional or verbal abuse from a dating partner (Durose, et al., 2005).

Associated DV costs are more than \$8.3 billion annually, including medical and mental health services and lost productivity (Max, Rice, Finkelstein, Bardwell, & Leadbetter, 2004). The United States Preventive Services Task Force (USPSTF) found insufficient evidence to support for or against routine DV screening. However, the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), American Medical Association (AMA), and International Association of Forensic Nurses (IAFN) each have standards, guidelines and / or recommendations for universal DV screening of all patients, especially in the ED (JCAHO, 2005; AMA, 2008; USPSTF, 2004; and IAFN, 2009). Although these national standards exist for DV screening, it is not consistently completed for all patients. Less than 25% of women seen in 11 US EDs were asked DV screening questions (Glass, Dearwater, & Campbell, 2001). This DV screening percentage is consistent with other published research (Daugherty, & Houry, 2008).

Barriers for nurses regarding DV screening include a scarcity of DV knowledge and education, time constraints, their own personal experience with abuse, and perceptions of patient compliance regarding returning to the violent home (Gutmanis, Beynon, Tutty, Wathen, & MacMillan, 2007). An inherent barrier for DV screening in a rural community hospital setting serving members of small towns or areas is the familiarity between the health care provider and the patient or the patient's family or social network. Familiarity of the health care provided may be an alienating barrier for the DV victim (Annan, 2008; Lewis, 2003). Additional barriers for patients of DV are lack of trust in the system as well as a lack of available resources to aid DV victims. Associated patient factors are lower income and education levels, unemployment, and/or alcohol or drug abuse (Boyle et al., 2004; Nolan, 2005). The US Census Bureau (2000) designation for non-metropolitan was used in this study.

From an evidence based practice perspective, research was first conducted to determine actual DV ED screening rates being conducted in two rural EDs and of those screened, to determine the percent screening positive for DV. Thus, the objectives of this study were to quantify rural community hospital overall ED patient DV screening rates and positive DV screen rates. Based upon this information, hospital management could determine if procedures should be implemented with the objective of 100% DV screening of ED patients.

## **Methods**

This retrospective chart review study was conducted by nurses in two rural community hospital EDs belonging to one hospital system in the mid-Atlantic region of the U.S. This study was reviewed by an Institutional Review Board and deemed to be exempt. The objectives of this study were to quantify rural community hospital ED patient overall DV screening rates and

positive screen rates.

A sample of 1,200 ED patients were identified from 13,336 admissions in a one year period between 2006 and 2007, using a random numbers generator software program. These patient's electronic medical records (EMR) were reviewed to determine if study eligibility criteria were met. Patients were excluded for the following reasons: (a) sexual assault or psychiatric emergencies as these patients are automatically screened for DV by specialized response teams; (b) cardiac or respiratory arrest, major trauma, or patients requiring a higher level of care precluding the ability to conduct DV screening; or (c) or long term care facility patients due to the problematic nature of completing subjective screening for this population.

Data abstracted was as follows: admission related information, demographics, primary language spoken, and nurse documentation of the three key DV screening factors: (a) patient was physically or sexually assaulted in the last year; (b) patient was afraid at home or in their current environment; and / or (c) patient had objective signs, which included avoidance of caretaker, lack of eye contact, injury not consistent with history, multiple injuries in various stages of healing, and pattern injuries.

### Results

Eighty-eight percent (n=1,056) of rural ED patients in this study sample had documentation for DV screening being completed (see Table 1). For those screened, the majority were female (56%), English speaking (98%) patients with an average age of 37 years. For the age group 14 years of age and younger, the DV screening rate was lower (77%) for all other age groups combined (p<0.0001). There were no statistically significant differences in the screening rates for domestic violence by gender.

**Table 1**

*Demographics of Screening for DV and Outcomes Using Electronic Medical Records*

Demographics	Negative for DV (N=1031)	Positive for DV (N=21)	No DV Screening Documented (N=148)	Total Sample (N=1,200)
Females %	56%	62%	55%	56%
Average Age in Years (range)	36.8 (1-94)	28.9 (12-52)	30.5 (1-85)	35.9 (1-94)*
Primary Language, %				
English	98%	86%	96%	97%*
Spanish	2%	14%	4%	3%

\* = Statistically significant at the 0.01 level

A total of 21 patients (2%) had documentation positive for DV. The majority were female (62%), English speaking (86%) patients with an average age of 29 years (p<.01; 95% Confidence Interval [1.2%, 2.8%]). Eighty-six percent reported assault, 33% reported fear, and 19% had objective signs of DV, producing a total of 29 key factors in the 21DV positive screen patients.

### Discussion

The positive DV screening rate of 2% in this retrospective study is notably lower than other published rates (9 to 25.7%), including rural rates for the prevalence of intimate partner violence between 8% to 22%, with lifetime prevalence of 13% to 30% (Krishnan, Hilbert, & Pase, 2001).

A limitation of this study was the retrospective nature of this research. Prospective survey research that would allow researchers to objectively evaluate the three key factors for DV screening is recommended. Further, prospective research to facilitate evidence based identification of nurse and patient barriers for DV screening and reporting is recommended. Research is also recommended that would result in a valid and reliable tool for DV screening in the ED for both adults and adolescents. While there are validated instruments for intimate partner violence, these instruments are not specific to DV screening for adults and adolescents in the ED. Research is also needed from rural EDs to further understand barriers of DV screening for patients and ED nurses and doctors alike.

As a result of this research, modifications to the EMR have been recommended to facilitate DV screening of 100% of ED patients. Nurses would be required to complete a separate screen in the EMR before computerized discharge would be allowed of the ED patient screening positive for DV. In addition, mandatory DV awareness training was completed for ED personnel and DV awareness training for all ED nurses was proposed as part of the annual competency requirements for registered nurses.

### **Conclusion**

The overall DV screening rate of 88% in this rural hospital system supports the recommendation that all hospitals should ensure they have 100% DV screening rate compliance. Evaluation of DV screening rates within the hospital may need to be completed to determine compliance. Incorporation of DV screening data in the EMR would facilitate this initiative. Also, availability of open text fields in the EMR would facilitate documentation of objective signs of DV. Age appropriate DV screening questions should be available, particularly for children.

The 2% positive DV screening rate in this study supports the recommendation of other rural hospitals evaluation of their positive DV screening rates. Research is warranted to determine barriers to DV screening for both nurses and patients.

Research is also warranted on the effect of DV screening training programs to increase the overall DV screening rates and the ability to identify victims. It is only when the DV victim is identified that hospital staff can then begin to provide resources to help them.

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