

**Intimate Partner Violence Assessment Program Evaluation**

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April 19, 2022

### **Abstract**

Intimate partner violence (IPV) refers to the violence or patterns of abusive behaviors between intimate partners with 17 % of men and 33 % of women experiencing IPV (Ahmed et al., 2017). Despite the prevalence of IPV in the general population, compliance with national standards for IPV screening is inconsistent. Surprisingly, only 66 % of hospitals across the US screen for IPV in their EDs (Delgado et al., 2011). The purpose of this project was to conduct a systematic program evaluation of the IPV screening program currently utilized in the ED of an academic medical center. This program evaluation led to nine recommendations that can improve the site's compliance (0.015 %) with hospital policy and TJC standards. Considering the sobering statistic that 50 % of women who died from IPV were seen by a provider a year before their death (Aboutanos et al., 2019), implementing the recommendations from this program evaluation and continuing annual audits of compliance with TJC standards has significant potential to consistently improve outcomes for the vulnerable population at risk of IPV.

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## **Intimate Partner Violence Assessment Program Evaluation**

### **Introduction and Background**

Intimate partner violence (IPV) refers to the violence or patterns of abusive behaviors between intimate partners with 17 % of men and 33 % of women experiencing IPV (Ahmed et al., 2017). IPV can occur in heterosexual relationships as well as homosexual relationships and women can be the perpetrators of IPV, not just men. Several terms are used to describe IPV such as domestic violence, and wife battery, but IPV is the most current term.

Nurses in the emergency department (ED) play a critical role in the identification, prevention, and management of IPV. Health care professionals in the ED have a unique opportunity to screen for IPV and competence in assessing the needs of the patient can significantly impact the rates of disclosure. Assault in the patient's home was the strongest indicator of IPV-related assault (Yau et al., 2013). Furthermore, head, neck, and face injuries were present in almost half of the patients that screened positive for IPV and patients with such injuries were more likely to report IPV-related injuries than those with injuries to other body regions (Perciaccante & Carey, et al., 2010). Fifty-four percent of women that report to the ED have experienced IPV at some points in their lives with only 5 % of these women identified by health care professionals (Ahmad et al., 2017). One in 20 men that present to the ED are IPV survivors, and one out of seven trauma patients are men that screen positive for IPV (Zakrison et al., 2018).

Despite the prevalence of IPV in the general population, compliance with national standards for IPV screening is inconsistent and identified barriers to compliance with IPV screening include lack of standardized IPV detection training for ED staff, lack of consistency in screening methods and frequency (Hugl-Wajek et al., 2012), discomfort with IPV, perceived

victim responsibility, lack of time, and expected futility of intervention (Perciaccante, & Susarla, et al., 2010). Additional barriers include high volume of patients, overburdened staff, time allocation, and the challenge of establishing rapport and trust with patients that have experienced such trauma as IPV. Furthermore, the gender of the healthcare professional conducting the screening may determine if the patient is comfortable in disclosing IPV (Ahmad et al., 2017). Of all the barriers identified, lack of education regarding IPV screening was the most common (Chapin et al., 2011, Hugel-Wajek et al., 2012, Robinson, 2010). The most concerning aspect of these barriers to IPV screening is the risk for future fatal injuries due to ineffective identification of patients at risk. Tragically, 50 % of victims killed by IPV had been seen by a health care provider one year before their death (Aboutanos et al., 2019).

There are several implications for the systematic improvement of the quality of IPV programs to enhance screening. Only 66 % of hospitals across the US screen for IPV in their EDs (Delgado et al., 2011). An identified problem is decreased awareness of the importance of IPV screening and the positive impact nurses can have on IPV identification. One study found that positive IPV screens increased the most when screening efforts were championed by nurse leaders (Scribano et al., 2011).

Ahmad and colleagues reviewed 29 empirical studies conducted between the years of 2000–2015 that explored screening interventions used in the ED to identify IPV victims and survivors. Studies were conducted in the USA, Australia, Canada, Iceland, New Zealand, and the United Kingdom. Due to 24-hour availability, the ED is a useful place for IPV to be screened and identified (Houry et al., 2008; Ahmad et al., 2017). IPV screening can help identify IPV which can help reduce fatal consequences of IPV such as suicide or homicide. Some healthcare professionals fear unintended consequences or harm to the victim due to IPV screening,

however, evidence supporting harm from IPV screening is scarce (Houry et al., 2008; MacMillan et al. 2006; Ahmad et al., 2017). In fact, IPV screening can help reduce abuse, and improve social and clinical outcomes for the IPV victim (Bair-Merritt et al., 2014; Taft et al., 2013; Ahmad et al., 2017).

Of all the women presenting to the ED, evidence suggests about 54 % have experienced IPV in their lifetime (Abbott et al., 1995; Ahmad et al., 2017), however, only 5 % were identified by healthcare professionals (McGarry & Nairn, 2015; Ahmad et al., 2017) with many victims remaining unnoticed (Corbally, 2001; McGarry & Nairn, 2015; Ahmad et al., 2017). The major finding was that universal or routine screening of IPV resulted in higher rates of identification and this led to interventions to reduce IPV experiences of those screened. However, these studies showed that some providers screen all patients, whereas other providers screen selectively. Overcrowding, reduced preparedness, reduced confidence, and lack of time have been listed as some obstacles to screening, detection and supporting IPV victims in the ED setting (Hugl-Wajek et al., 2012, Gutmanis et al., 2007, Gerbert et al., 2002; Ahmad et al., 2017).

Assault in the patient's home was the strongest indicator of IPV-related assault (Yau et al., 2013). Since the start of the COVID pandemic quarantine in March 2020, people were encouraged to stay home. Sadly, nine major metropolitan cities in the United States reported a 20 to 30 percent increase in domestic violence calls (Kofman and Garfin, 2020). Yet, data from national domestic violence hotlines are mixed with some hotlines showing an uptick in calls and others showing a decrease in calls, both of which can tell an unsettling story. With their violent partners in proximity some victims may find it nearly impossible to utilize hotlines.

The Joint Commission (TJC) requires hospitals to have policies for the identification, evaluation, management, early identification, and referral of patients that are victims of IPV

(Burnett, 2018). Despite this TJC mandate, however, not all hospitals are compliant (Perciaccante, & Carey, et al., 2010). A national survey of 348 randomly selected from a total of 4,874 EDs in the United States reported that one in three hospitals are not meeting TJC mandates for IPV screening (Delgado et al., 2011). Though this survey was conducted in 2011, no recent study was found that shows a more consistent compliance with the TJC standard for IPV screening.

Thirty-three different tools exist for IPV screening (Ahmad et al., 2017). However, few of the tools have been validated and the sensitivity and specificity are quite varied. The results in the studies reviewed by Ahmad et al were not conclusive about the effectiveness of universal IPV screening or that IPV screenings increase the rate of referrals to agencies.

Some of the more commonly used screening tools for IPV include Hurt, Insult, Threaten, and Scream (HITS) (Zakrison et al., 2018), Partner Violence Screen (PVS), and Woman Abuse Screening Tool (WAST) (Perciaccante, & Susarla, et al., 2010), and the Humiliation, Afraid, Rape, Kick (HARK) (Sohal et al., 2007). The HITS tool is used at the author's practice site.

The HITS tool is recommended by the CDC and the American College of Surgeons (ACS) Trauma Quality Programs (TQP) Best Practices Guidelines for IPV screening and prevention (Bonne et al., 2019). The HITS screening tool has been tested in emergency room populations, is validated for use in men, has good internal consistency and construct validity (Zakrison et al., 2018). For women the sensitivity ranges from 86 %-96 % and specificity ranges from 91 %-99 %, for men the sensitivity is 88 % and specificity is 97 % (Basile et al., 2007).

Often, social workers complete the HITS tool or consult on the patient once the tool is completed by a nurse. Social workers may offer community resources to patients based on their HITS score (1 = never, 2 = rarely, 3 = sometimes, 4 = fairly-often, 5 = frequently). HITS scores



range from 5 to 20 and scores of ten or greater in females and 11 or greater in males are classified as being victimized.

The tool uses a Likert scale of never (1) to frequently (5) in response to these four questions (Basile et al., 2007, p 42):

1. How often does your partner physically hurt you?
2. How often does your partner insult or talk down to you?
3. How often does your partner threaten you with physical harm?
4. How often does you partner scream or curse at you?

The practice site of this author, an academic medical center in the mid-Atlantic states, is a 70-bed level-one trauma center averaging sixty thousand patients seen per year (UVA Health, 2020). This ED implemented the HITS screening tool in early 2021, but the current compliance to the TJC standard or to organizational policy is unknown. However, anecdotal evidence suggests that while nurses have been charged with screening for IPV, screening for IPV is inconsistent. In early 2021, a new IPV screening program was launched that charged social workers with the task of administering the HITS screening tool. The primary assessment remained the responsibility of the ED nurse.

Due to the prevalence of IPV and the potential impact of IPV on a patient's safety and quality of life, and the evidence that supports the consistent use of a tool and program that standardizes screening for IPV, the purpose of this DNP scholarly project was to conduct a systematic program evaluation of the IPV screening program currently in use in the ED in an academic medical center.

### Review of the Literature

A literature review was conducted to determine the best evidence regarding the use of IPV screening in the ED setting to enhance referrals to available community resources. Five databases were searched: Web of Science, PubMed, Cumulative Index of Nursing and Allied Health Literature (CINAHL), the Cochrane Library, and PsycInfo. The Cochrane Library search yielded 1 Cochrane review which was a duplicate and 41 trials which were either outside the assigned year range or were duplicates. Reference management software was used to merge duplicates.

In the Web of Science topic search, a string search was performed with the following string: (*"Intimate partner violence"*) AND (*"mass screening" OR screening*) AND (*"emergency service", hospital OR "emergency room" OR "emergency department"*). A yield of 113 articles was obtained.

In PubMed, a string search was performed with the following string: (*"Intimate partner violence"*[MeSH] OR *"Intimate Partner Violence"*[TIAB]) AND (*"mass screening"*[MeSH] OR *screening*[TIAB]) AND (*"emergency service, hospital"*[MESH] OR *"emergency room"*[TIAB] OR *"emergency department"*[TIAB]). By limiting the search from the years 2010 to 2021, 88 results were yielded. The mesh terms were indicated as [MeSH] in the search. Title in abstracts were searched and indicated as [TIAB].

A stepwise advanced search in CINAHL was performed with these limits: academic journals, English language, and publication years 2010 to 2021 resulting in 77 articles. The acronym MH indicates that a subject heading has been searched. Search 1: (MH *"Intimate Partner Violence"*) OR *"Intimate partner violence"*, search 2: (MH *"Health Screening"*) OR

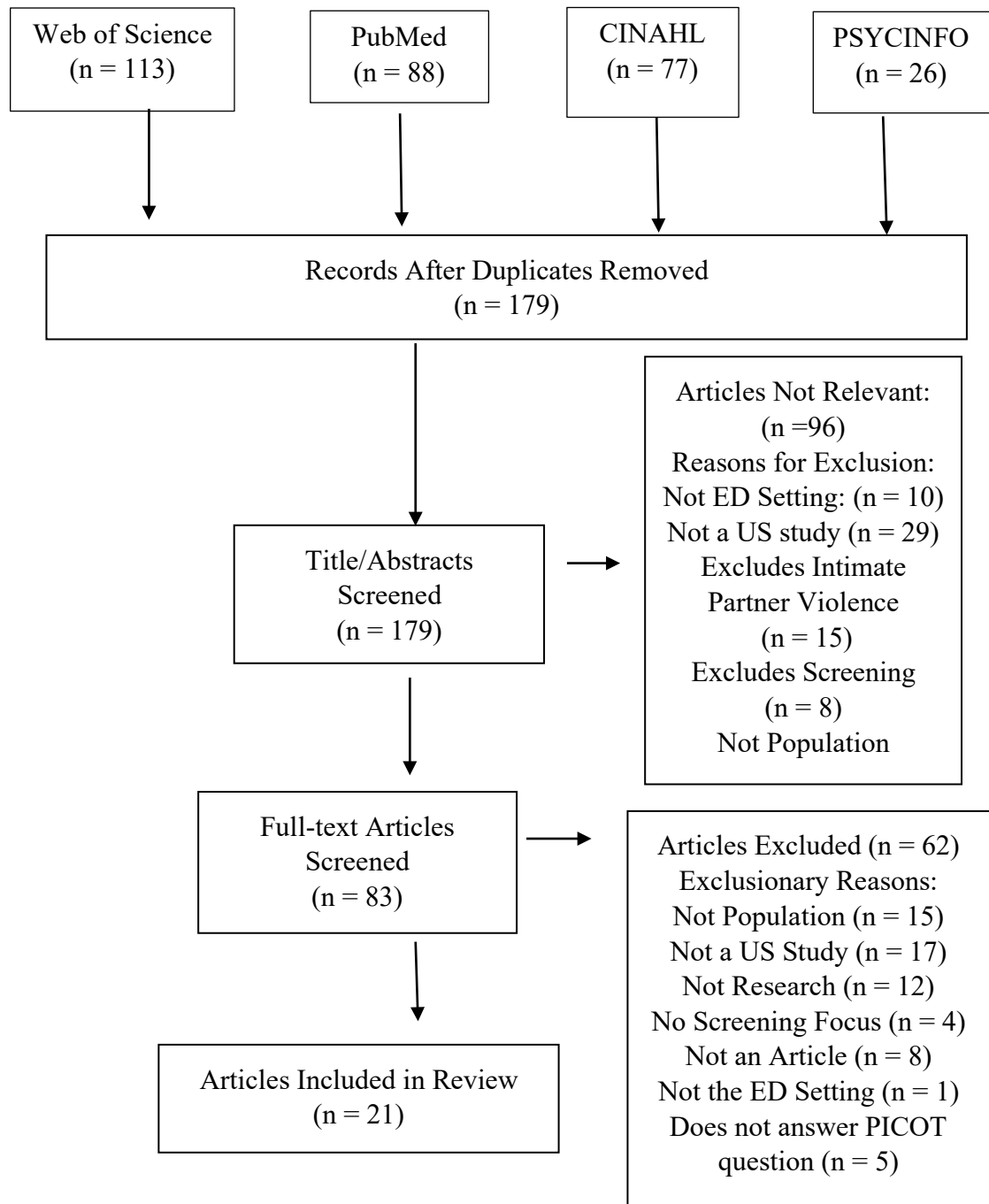
"screening", search 3: (MH "Emergency Service") OR "emergency department" and search 4: "Emergency room" were searched as keywords.

In the PsycInfo topic search, a string search was performed with the following string: "intimate partner violence" AND Screening AND ("emergency department" OR "emergency room") yielding 26 articles. The Cochrane Library was also searched. Within the title abstract keyword search bar, a string search was performed with the following string: ("Intimate partner violence") AND ("mass screening" OR screening) AND ("emergency service", hospital OR "emergency room" OR "emergency department") which yielded 1 Cochrane Review and 41 trials. However, after perusing the titles, many of them were duplicates of other searches, were outside the year limitation or 2010-2021, or were not US trials. Therefore, the Cochrane Library database search was not included in the final analysis.

The total number of articles from all four databases was 304 and 179 articles remained after removing duplicates. Articles were then excluded for the following reasons: non-US studies (44), letter to the editor, book, or paper (6), not the adult population and/or the population was specific to one group (49), outside the ED setting (8), quality improvement articles or were not research driven (10), no screening focus (11), no intimate partner violence focus (15), and, lastly, articles were already included in a systematic review (5). Refer to Figure 1 for application of exclusion rationales during title and abstract and full-text articles screen. A total of 21 articles were retained in the final pool for analysis. Figure 1 is a Prisma diagram of the literature search.

**Figure 1**

*Article Flow Diagram (Modified PRISMA Flow Diagram)*



The evidence level and quality of the items retained from the search as shown in appendix A, were evaluated using the Johns Hopkins Nursing Evidence-Based Practice criteria (Dang & Dearholt, 2017). Seven of the 21 studies were level II studies (Chapin et al., 2011; DiVietro et al., 2018; Hugl-Wajek et al., 2012; Rhodes et al., 2011; Schrager et al., 2013; Scribano et al., 2011; Wolff et al., 2017). Six of the seven level II studies were high (A) quality, except the study by Hugl-Wajek et al. (2012), which was good quality (B). The remaining 14 studies were level III which included a systematic review, (Choo, & Ranney et al., 2012), which received a level III because the lowest level of evidence within the systematic review was a level III. All the level III articles were of high (A) or good (B) quality with most being high quality. Most of the studies within this review of literature were quantitative except for Williams, et al. (2016) and Choo et al. (2015), which were both qualitative.

### **Themes**

Considering that the levels of evidence were all a level II and III, a thematic analysis was performed. Five themes emerged: Face-to-face screening, computer-based screening, identification through ED presentation and injury location, dual approach to IPV identification such as combining methods, and education.

#### **Theme 1: Face-to-Face Screening**

Face-to-face screening is a method in which the provider, or a staff member verbally delivers screening questions face-to-face as opposed to the written word or via a computer (Williams et al., 2016). IPV screening must be done with no family present and removing law enforcement from the room is recommended (Rodriguez, 2019). Several face-to-face IPV screening tools were identified, however, no one screening tool was more effective than another. Some of the face-to-face IPV screening tools include: The “Five Steps in Screening for IPV”

instrument which incorporates the HITS screening tool (Bazargan-Hejazi et al., 2014), the Partner Violence Scale (PVS) (Wolff et al., 2017) and the HITS screening tool (Zakrison et al., 2018).

A cross-sectional study completed by Bazargan-Hejazi et al. (2014) included 412 participants admitted to a large west coast inner city teaching hospital in 2001 with the aim to examine differences between those that experienced IPV and those that did not experience IPV. The study used the “Five Steps in Screening for IPV” tool and aimed to investigate difference between four groups: Those that commit IPV (perpetrators), victims of IPV, those involved in mutual violence (reactors), and those with no involvement in IPV either as a victim or perpetrator (pacifist). Of the 16 % of the sample that experienced IPV, 20 % were victims, 31 % were perpetrators, and 49 % were reactors with pushing, shoving, and grabbing being the most frequently reported acts. There was a significant relationship between drug use and the four IPV profiles ( $p = 0.0005$ ) with over 40 % of perpetrators and reactors reporting drug use compared to < 22 % of pacifists and victims. Those who experience IPV had higher Center for Epidemiological Studies Depression Scale (CES-D) mean scores ( $p < 0.01$ ) and impulsivity mean scores ( $p < 0.01$ ). Limitations to this study include the inability to generalize based on the small sample size of the IPV population, exploration of gender differences was limited, and data for this study was collected in 2001.

The use of the PVS as a face-to-face screening tool for patients with low literacy rates was examined by Wolff et al. (2017). Using a quasi-experimental design, they enrolled patients presenting to an urban ED between 2013–2014 to determine if basic or enhanced referral would be more effective in connecting victims of IPV with behavioral health resources. The basic referral group (control group) received a brochure of behavioral health resources while the

enhanced referral group (intervention group) received a brochure, psychoeducational information about IPV and mental health problems, and assistance scheduling appointments. Participants in the enhanced referral group were more likely to have a successful referral than the participants in the basic referral group ( $p < 0.001$ ).

The PVS tool had a sensitivity score of 71 % and a specificity score of 84 %, however, there is limited demonstration of the reliability of this measure. An additional limitation of the PVS tool is it does not screen for psychological abuse, which could result in failure to identify at risk patients, but it is more appropriate to patients with low literacy rates to participate in the screening process.

The two IPV screening tools, HITS, and the Screen, Ask, Validate, and Evaluate (SAVE) were compared in an observational cohort study by Zakrison et al. (2018) conducted from March 2015 to April 2016 at four level 1 trauma centers with the aim to perform a subgroup analysis of male IPV victims. This study focused on intimate partner sexual violence (IPSV) and IPV, therefore, in addition to the HITS screening tool to screen for IPV, the SAVE screening tool was used. IPV screening was done mostly by clinical social workers but did include behavioral psychologists or trauma registered nurses (RN). The investigators found that dedicated behavioral therapists performed the most IPV screens and male subjects had the highest positive IPVS screening rate ( $p = 0.000831$ ). A major limitation of the Zakrison et al. (2018) study was that variability depended on who performed the screening, what patients were screened for, and where the screening took place.

## **Theme 2: Computer-Based Screening**

The second theme identified was computer-based screening as a strategy to overcome the barrier of limited personnel to conduct to face-to-face screenings (Choo, & Ranney, et al., 2012).

Computer-based screening allows patients to answer IPV screening questions on designated computers at their own pace, providing privacy and anonymity, and requires little to no clinician involvement. The computer-based screening tools included: WAST (Choo et al., 2015), Conflict Tactics Scale-2 (DiVietro et al., 2018), and Universal Violence Prevention Screening Protocol (UVPSP) (Schrager et al., 2013). Computer-based screening technologies showed high feasibility and acceptability with few negative consequences, although, there was no emphasis placed on one screening tool, but rather on the method of delivery (Choo, Nicolaidis, et al., 2012).

A qualitative study conducted by Choo et al. (2015) studied seventeen women with recent histories of IPV and drug abuse who were recruited from an urban ED with the aim to explore their attitudes about the use of computers in screening for IPV. Female patients reported feeling more comfortable using the computer-based screening method as it was easier, safer, and could shield them from embarrassment and fear. The limitations of this study were that a convenience sample was used, and findings may not be generalizable to rural women because urban women were utilized in the study. Kiosk-based screening using the Universal Violence Prevention Screening Protocol (UVPSP) and referral tools helped at-risk women that presented to the ED and was associated with a high proportion of participants taking protective action against their abuser (Schrager et al., 2013). Additionally, kiosk screening stations have been shown to be an effective and safe way to deliver information about IPV. Another limitation of this study was the random sampling of women in the triage area.

A prospective randomized control trial by Scribano et al. (2011), was conducted in an urban pediatric ED with an annual census of 91,864 aimed to evaluate the feasibility of caregiver-initiated computerized screening. Between October 2008 to December 2009, 13,057



(14 %) computer screens were conducted and of the 14 % of participants who completed the screens, 13.7 % had a positive IPV screening rate. Interestingly, the number of participants who completed the IPV screening increased to 32 % when nurse leaders championed the screening efforts. The study found that computerized-based IPV screening kiosks were effective in a pediatric ED, however, IPV screening rates were not provided prior to the implementation of the computerized IPV screenings. A limitation of this study is the screening questions were presented at a sixth and seventh grade reading level which may prevent patients with lower literacy rates from participating. To combat this, research assistants were made available to facilitate screening. A strength of this study is ED social workers were automatically paged and received printouts of the responses of patients that screened positive, and the reliability of the technology was high.

### **Theme 3: Identification Through Injury Location and ED Presentation**

Additional barriers to IPV screening include time constraints, futility of intervention, and discomfort with IPV (Perciaccante, & Carey, et al., 2010). The third theme, identification of IPV through injury location and identifying at risk patients based on how they are brought into the ED, has been studied as a possible intervention to overcome this barrier. Women that present to the ED with head, neck, and face injuries were 7.5 to 11.8 times more likely to report IPV than women that report injuries in different locations. Furthermore, a retrospective study by Rhodes et al. (2011), examined IPV related police events and ED visits from 1999 to 2002 within 12 police jurisdictions and 8 EDs in a semi-rural midwest county. The study found that the odds that IPV would be identified doubled if victims were brought to the ED by the police. The limitation of this study is that it was done in one region of the country and therefore, may not be generalizable.

Trauma recidivism is associated with positive IPV screens (Wolff et al., 2017; Zakrison et al., 2017). A retrospective ED chart review situated in an ED in New York City aimed to inform guidance on identification of IPV in EDs by comparing distinguishing characteristics of IPV-related assaults to non-IPV-related assaults. This study by Yau et al. (2013) found that of 14,990 assault victims treated in EDs from 2000 to 2007, 63.2 % were men, and 36.8 % were women. Among the women assaulted, 27.7 % were IPV victims and 23.2 % were assaulted at home (adjusted odds ratio (AOR) of 12.8 %, 95 % confidence interval (CI) 8.5–19.1). Furthermore, women with sustained head injuries had higher odds of IPV victimization (AOR 1.6, 95 % CI 0–2.5). Among the men, 4.7 % were IPV victims and 6.8 % were assaulted at home with the odds of IPV victimization being higher for assaults occurring in the home (AOR 25.9, 95 % CI 12.1–55.8). These findings suggest a strong indicator of IPV-related assault was assault in the victim's home. Additionally, this study highlighted that directed probing for assault incident characteristics may turn out to be an effective, efficient method for the busy ED provider to identify IPV. This method of identification, however, should complement ED screening practices, not replace them. The limitation of this study is the incomplete or missing data in this retrospective chart review. IPV identification through injury location is recommended to be used in combination with IPV screening tools as discussed in the dual-approach theme section.

#### **Theme 4: Dual-Approach**

Several studies discussed dual methods to screen for IPV. Dual methods merge different combinations of screening tools or methods such as computerized screening tools with face-to-face screening, or combined injury location with face-to-face screening tools, etc. In an epidemiologic study done in the Northeast in a level one trauma center that admits 2000 patients,

250 patients were enrolled into the study from May 2015 to July 2017 to determine the feasibility of a dual method screening approach. The participants were assessed for IPV using a touch screen device using the Conflict Tactics Scale-2 computerized screening tool followed by a face-to-face assessment with the HITS (DiVietro et al., 2018). This dual approach combined the benefits of computerized assessment with the rapport-building and flexibility of the in-person, face-to-face, interview-based screening. The use of the dual method produced the highest number of IPV positive screens; a total of 44 women (50.6 %) and 58 men (35.6 %) screened positive for IPV with either the tablet or face-to-face screen. The limitation of this dual approach is the process can take up to 20 minutes of the patient's time to administer both tools.

The cross-sectional study by Perciaccante & Carey, et al. (2010), presented another dual approach which combined the use of the face-to-face PVS or the WAST with injury location such as head, neck, or face injuries. This combination was a better predictor of IPV detection than either modality alone. The study, performed in a level 1 trauma center in the south from April to August 2001, reported that even though, the WAST tool had superior sensitivity to the PVS tool, the WAST tool had the poorest specificity compared to the PVS tool. However, with the addition of the injury location, the specificity increased. WAST plus injury location was superior to the PVS screening tool plus injury location due to the highest sensitivity and specificity. The limitation of this study was the predominance of African Americans in the sample impacting self-reporting rates and generalizability.

In a separate cross-sectional study that used the same population, the WAST screening tool and injury location dual approach was shown to be effective to the same population as a protocol in a level 1 trauma center in the south from April to August 2001 (Perciaccante, &

Susarla, et al., 2010). The limitation of this study was the large African American sample, which can reduce the ability to generalize to other populations.

### **Theme 5: Education**

Another barrier to IPV identification was the lack of education or experience in IPV screening among ED health care personnel (Hugl-Wajek et al., 2012). One phenomenological qualitative study conducted by Robinson (2010) in the south-central United States interviewed a total of 13 ED nurses. The study revealed that ED nurses could not recall any formal IPV education, most did not complete universal screening for IPV, and most reported that the victim would return to the abusive relationship regardless of the risk despite IPV screening. A limitation of this study was the small sample size. However, after receiving IPV training, participants in a quasi-experimental study were better informed about obstacles faced by victims in their attempt to leave abusive relationships, IPV screening tools, and IPV services (Chapin et al., 2011).

On the contrary, an epidemiologic, cross-sectional, observational study sampled 288 healthcare facilities in Florida from June 2014 to January 2015 with the aim to examine policies and procedures for identifying and responding to IPV. The study found that healthcare workers were requesting procedural guidance regarding IPV screening and requesting additional local resources and education for both the patients and the providers (Williams et al., 2016). The limitation of this study was that fidelity to the facilities' policies and procedures could not be determined. Another study found higher rates of positive IPV screens among patients who were interviewed by a trained domestic violence coordinator (Hugl-Wajek et al., 2012). Interestingly, one study found that out of four level 1 trauma centers in the US, the center that utilized a dedicated behavioral psychologist to perform IPV screenings had the highest rate of positive screens for both men and women (Zakrison et al., 2018).

A cross-sectional study by Randell et al. (2018) recruited a convenience sample from three acute care sites in a midwestern children's hospital system and enrolled 522 participants from April 2012 to September 2012 (pre-display) and October 2012 to November 2013 (post-display). The aim of this study was to determine the effect of IPV materials on the attitudes of caregivers toward IPV screening and the acceptability of the materials. The study found that any poster and pamphlet display, whether it displayed hope or displayed graphic images, did not impact a women's willingness to self-report IPV or answer IPV screening questions honestly. However, there was an increased proportion of participants with a personal history of IPV (55 % pre vs 73 % post,  $p = 0.02$ ), African Americans (60 % pre vs 78 % post,  $p = 0.02$ ), and those with high school degrees or less (66 % pre vs 77 % post,  $p = 0.04$ ) who were more willing to answer honestly about IPV questions. Limitations of this study include generalizability as the participants were recruited from a single institution.

One observational study (Choo, & Nicolaidis, et al., 2012) assembled the data from 21 EDs in the northwest from 2001 to 2005 merged with a telephone survey at the same hospitals with the aim to examine the association between IPV diagnoses and a variety of resources. IPV was diagnosed 1,929 times in 754,597 adult female visits with mandatory IPV screening and victim advocates being the most common resources available. However, of the hospital services and policies assessed, a standardized intervention checklist for management of IPV was associated with increased odds of receiving an IPV diagnosis (odds ratio (OR): 1.71; 95 % CI: 1.04 – 2.82). The odds of receiving an IPV diagnosis was decreased with the use of public displays and there was no association between an IPV policy and an IPV diagnosis (OR: 1.48; 95 % CI: 0.70–3.14), training of clinicians (OR: 1.12; 95 % CI: 0.70–1.80), ED advocacy (OR: 1.00; 95 % CI: 0.37–2.69) or standardized screening questions (OR 0.82; 95 % CI: 0.42–1.62).

The primary outcome of an IPV diagnosis was dependent upon accurate coding and documentation which is a limitation. Another limitation was the survey instrument was not a validated assessment tool, however, once a patient has been identified as IPV positive, providing a brochure of behavioral health resources and paper copies of educational information about IPV issues improved referral of the patients after discharge from the ED (Wolff et al., 2017).

### **Publication Bias Check**

To address the possibility of publication bias, a search of the grey literature was performed. Key search terms “intimate partner violence and screening and emergency room” were entered into the search bar yielding about 13,800,000 results. The search results were ranked from most relevant, and the first 20 results were examined. There was no evidence of a publication bias based on the grey literature, and findings were consistent with the themes in the systematic review.

There is strong evidence that a dual approach that combines injury location with in-person screening increases IPV positive screens. This dual approach was more effective when combined than when used in isolation (Perciaccante, & Susarla, et al., 2010; Perciaccante, & Carey, et al., 2010; DiVietro et al., 2018). The other dual method approach study by DiVietro et al. (2018) was effective as the design combined a computerized screening method with face-to-face screening, however, the costs required to implement this may be a barrier to use. Additionally, ensuring training of the ED staff on the policies and procedures and involving a social worker as early as possible when IPV is identified or suspected was an effective strategy. Furthermore, the likelihood of identifying IPV was improved when trust and rapport was established which was accomplished through ensuring privacy, actively listening, ensuring continuity of care, and asking questions face to face (Williams et al., 2016). Similarly, kiosk-

based screening in the ED may help women feel more comfortable, can provide privacy, and help reach a varied population of at-risk women which can result in women taking protective actions over shorter periods of time (Schrager et al., 2013).

Finally, educating staff how to screen, the importance of screening, and policies and procedures of screening and response are vital to success. A key barrier to routine IPV screening was inadequate preparation and lack of education (Hugl-Wajek et al., 2012). An important finding was that standardization of universal IPV screenings has been found to improve screening (DiVietro et al., 2018). Furthermore, there is an implication of designating trained individuals such as domestic violence coordinators or social workers to conduct the IPV screening. The number of IPV screenings increased when performed by trained domestic violence coordinators and referrals almost always occurred when social workers were involved (Hugl-Wajek et al., 2012; Rhodes et al., 2011).

### **Limitations of the Review**

The limitations of this review were the lack of level I evidence studies, with most studies being level II and level III. A few studies failed to discuss validity and reliability or specificity and sensitivity of IPV screening tools and were given a good rating. However, one of the most readily utilized IPV screening tools was the HITS IPV screening tool as recommended by the American College of Surgeons (Bonne et al., 2019). Other limitations included inability to generalize findings due to high levels of ethnic populations in locations such as inner cities compared to rural (Bazargan-Hejazi et al., 2014). Furthermore, some of the studies had small sample sizes such as in the study by Robinson (2010) in which 13 ED nurses participated.

The purpose of this project was to conduct a systematic program evaluation of the IPV screening program currently utilized in the ED of an academic medical center. The external

evidence synthesized from the ROL shows that IPV screening is required as a standard of care by TJC and ACS, but adherence to these standards is lower than desired as up to 33 % of hospitals do not screen for IPV (Delgado et al., 2011). While there are 33 different screening tools, the strongest evidence found in this review was the dual method approach (DiVietro et al., 2018, Perciaccante & Carey, et al., 2010, Perciaccante, & Susarla, et al., 2010) and education (Chapin et al., 2011; Hugl-Wajek et al., 2012; Robinson, 2010, Wolff et al., 2017, Zakrison et al., 2018, Choo, & Nicolaidis, et al., 2012). Many nurses and health care professionals lack the confidence and/or education in how to conduct IPV screening (Hugl-Wajek et al., 2012, Robinson, 2010; Williams et al., 2016). This external evidence informed this internal data obtained in the following institutional assessment.

### **Institutional Assessment**

The practice site is a 600-bed Level 1 trauma center in the mid-Atlantic states that sees an average of 60,000 patients per year and serves a predominantly rural population. During the time of this program evaluation, there were 30 full-time faculty providers and three part-time faculty providers, all of which were ED physicians, one nurse practitioner, no physician assistants, 12 designated social workers, and four part-time forensic nurse examiners (FNEs) and one forensics nurse practitioner (UVA Health, 2020). In January 2022, the nursing turnover rate was 70 % with 77 open RN positions. There were 22 full time RNs, five part time RNs, 17 RNs that opted for no benefits, and 65 travel RNs. The average experience of staff RNs was about 8 years, however, three or four RNs have over 20 years of experience. The median years' experience was closer to 3 years. Most of the travel RNs had a few years of RN experience (K. Kasen, personal communication, January 20, 2022). The nurse/patient ratio was variable. In this ED, new nurses completed a 6 to 12-week orientation and travel nurses were provided with a 2-day orientation.



The FNE service hospital inpatient and outpatient areas. A child abuse pediatrician covers the clinics and services are coordinated with community agencies. FNEs complete specialized training to care for patients that experience sexual assault, domestic violence, or strangulation (Forensic Exams, 2022). FNE consults are typically requested based on patient's injuries. Furthermore, reasons for consults were categorized in categories such as IPV and strangulation. The nursing staff or social work staff can call the forensic nursing team directly without placing a consult. The FNE office is adjacent to triage and therefore, FNEs are easily accessible. FNEs are available during business hours and on call for night and weekend hours. Patients with FNE consults are interviewed in the FNE office or at bedside (K. Coggins RN, FNE, personal communication, February 3, 2022). Most of the strangulation cases were related directly to IPV (K. Laughon, PhD, RN, FAAN, personal communication, January 18, 2022).

Social work consult requests were mainly received via phone or in person requests from nursing, FNEs, and providers. Tracking the number of consult requests related to IPV is difficult to track because consults were not ordered through the EHR. Between January 2019 to December 2021, 27,618 pediatric and adult consults were completed by the social work department in the ED. Reasons for consults were not tracked (J. Emanuel, personal communication, January 27, 2022). In March 2021, the HITS tool was built into the EHR, and the social workers were trained how to use the tool.

The ED was renovated in 2019 increasing its square footage from 15,000 to 45,000 square feet and bed capacity from 45 to 70. The renovation featured all private rooms, a separate space for pediatric and adult patients, and a dedicated space for mental health services (Rowe, 2019). The team expressed that the downside of the renovation was the conversion of the triage section from a private area to a semi-private area. The disadvantage of a semi-private triage

workspace is the inability to interview patients in private where sensitive questions can be asked (K. Kasen, personal communication, January 21, 2022).

Hospital policy HR 0213 requires that upon initial assessment, health care professionals screen all patients for abuse and neglect and shall refer all suspected cases to Social Work (Hall, 2020). This policy charges the RN with the responsibility for first line screening. Additionally, a systematic evaluation of the IPV screening program had not been conducted at the author's practice site to identify strengths and opportunities for improvement. There is no formal education on IPV screening or assessment included in the ED nursing orientation (M. Sutherland, RN, personal communication, November 12, 2021). There were no hard stops or prompts for IPV screening tools in the EHR.

A new program was implemented in the ED in 2021 to improve the rate of IPV screening and referral to community resources. The social work department was charged with completing the HITS IPV screening tool after a consult was initiated by the ED nurse, who is responsible for the primary screening. The social worker manager reported a lower-than-expected referral rate (E. Horton, personal communication, April 13, 2021). Since compliance with national standards and internal policy was unknown and barriers to IPV screening at this site were unexamined, this program evaluation of the IPV screening program, which is a subset of the overall patient safety program, was conducted.

### **Design: Program Evaluation**

The design of this DNP scholarly project was a systematic program evaluation using the Agency for Clinical Innovation (ACI) framework as the implementation framework. This model offers three different types of evaluations based on the length of time a program has been in place (ACI, 2013). A program evaluation is used to provide information about the activities,

outcomes, costs, and effectiveness of a clinical or administrative initiative (Yeaton et al., 1997).

A “program” is defined as activities required to achieve goals. The scope of the program evaluation is determined by the quality of the data available, availability of resources, complexity of the evaluation questions, and importance of the evaluation questions. A program evaluation can determine what structures and processes should be changed to improve outcomes.

Four assets must be in place for a program evaluation: an evaluation team, data, funding, and time (Yeaton et al., 1997). An evaluation team can be either from within the organization (internal), and/or outside the organization (external). Internal evaluation teams are useful if they have relationships with the program staff that can assist with more accurate, complete, and efficient data collection. However, barriers anticipated with use of an internal evaluation team include strong resistance from the program staff, or time constraints. External evaluation teams should be considered when new perspectives or objectivity is needed, time constraints prevent internal evaluation teams from conducting program evaluations, or an unbiased assessment is necessary.

Data is required for a program evaluation and can be qualitative or quantitative. The collection of baseline data improves the quality of an evaluation (Yeaton et al., 1997). The program evaluation plan should have precise start and end dates, interim and realistic milestones. Furthermore, all costs associated with the evaluation should be clearly stated.

Six principles underpin all ACI evaluations: Timeliness, active involvement, accuracy, validity, reliability, and ethical. Evaluations should be done in a timely manner, stakeholders should be identified and actively involved, assumptions and contexts should be explicit, methods and data should be relevant, valid, and reliable, and should be conducted in an ethical manner (ACI, 2013).

## **Formative Evaluation**

Three ACI program evaluation approaches include: Formative, process, or summative (ACI, 2013). A process evaluation is used to better understand how well the program is being implemented and can provide feedback on the quality of the implementation whereas, a summative evaluation is generally done at the completion of a project or near the end and assess the quality, outcome, and impact of a completed project. It was determined that these two approaches were not relevant to this IPV screening program. Formative evaluations assess program design and are implemented before the program often as a pilot. A formative evaluation approach builds a case for change, needs assessments, gap analysis, research synthesis, and review of best practice. The formative evaluation was a good fit for this IPV screening program evaluation because preliminary data and reports from stakeholders indicated a practice gap between optimal practice and actual practice (ACI, 2013). The formative evaluation typically asks the following three questions (ACI, 2013, p 4):

1. What is known about the problem that the program will address?
2. What is the accepted best practice?
3. What does research and evidence reveal about this problem?

## **ACI Evaluation Cycle**

The ACI evaluation cycle, as shown in Figure 2, outlines 8 steps in the process: establishing an evaluation team, planning, program logic, evaluation design, data plan, implementation, communicating results, and incorporating findings (ACI, 2013). These steps were followed as the methods to this program evaluation.

**Figure 2***ACI Evaluation Cycle*

*Note.* This figure provides a brief overview of each step within the ACI evaluation cycle (ACI, 2013, p. 6).

The ACI evaluation cycle was used as the implementation framework for this systematic program evaluation. The setting for this program evaluation was the ED at the author's practice site.

### **Step 1: Establishing an Evaluation Team**

Establishing an evaluation team provides a mix of expertise and independence whose role is to facilitate planning, implementation, analysis, and reporting of the evaluation and is necessary for an effective evaluation. The evaluation team for the IPV screening program evaluation includes: a practice mentor (the injury prevention coordinator), DNP advisor, social work departmental manager, social work ED supervisor, forensics nurse examiner (FNE), ED nurse, the ED nursing director, the ED nurse manager, and the ED nurse educator. Key partnerships were made with the injury prevention coordinator, ED nurse, and FNE. The ED

interim nurse manager ascended to the nursing director position and the nurse manager position was filled by an ED nurse, who also became a critical member of the team. The author also invited the chair of the department of emergency medicine and the ED's medical director to join the team. Individual and group meetings were conducted in person and by virtual meeting formats.

The creating of this team was a challenge for several reasons. First, the author was not employed at the site nor could seek employment due to active military status. Secondly, the project was initiated at the peak of the COVID-19 pandemic. Thirdly, the nurse staff turnover rate in the ED of 70 % presented challenges to nurse involvement.

### **Step 2: Planning**

The evaluation team also assists with planning by developing a communication and dissemination plan of the results and reports. The team agreed to participate in monthly 30-minute meetings via Zoom and email correspondence. The team also agreed to review and disseminate the final report and executive summary via email.

### **Step 3: Program Logic**

Program logic is a useful tool for defining a program and what should be measured and when (see Figure 3). Program logic can describe the change process, document connections between critical components within a project, and can facilitate participation of stakeholders. Components of a program logic are inputs, activities, outputs, and outcomes and provide an overview of progression of the program evaluation. The program logic underpinning this systematic evaluation was to evaluate the ED's IPV screening program and advise the best practice for IPV screening to improve screening compliance.

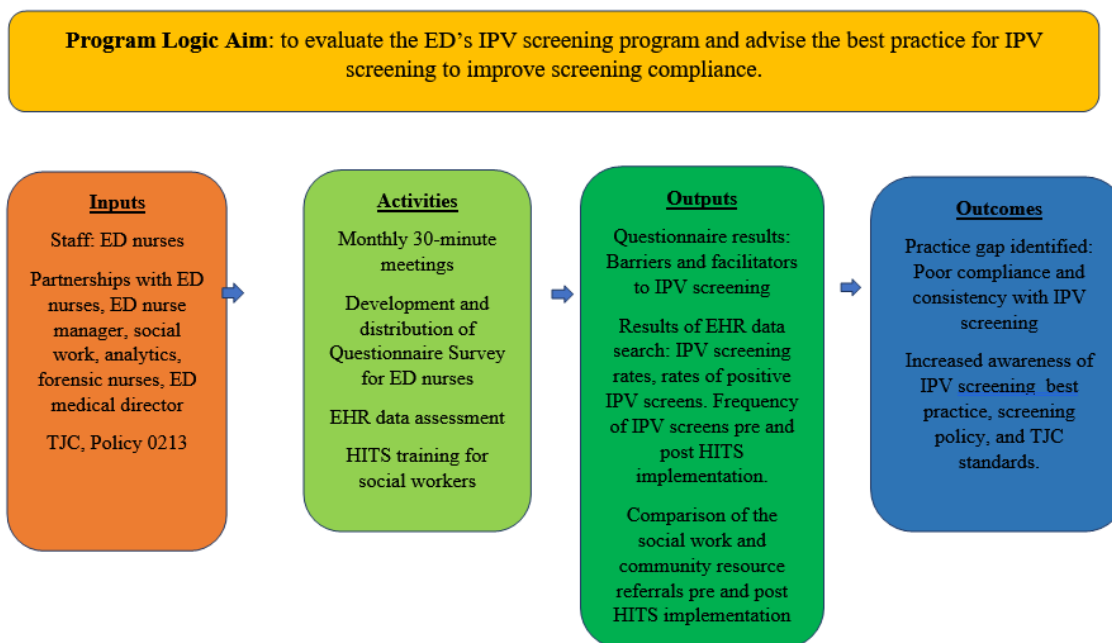
**Inputs** are the resources needed for implementation such as establishing a team, engaging key stakeholders, reviewing TJC standards for IPV screening, and ED Policy 0213. This IPV screening program evaluation team identified a practice gap in IPV screening and was fully engaged in monthly meetings. Through coordination from the nurse manager, the team shadowed a triage nurse to understand the workflow and were able to identify benefits and potential harms of screening in the semi-private triage area.

Activities were actions that led to meaningful outputs. The author led the following activities: 30-minute monthly team meetings, distributed the team-designed IPV screening questionnaire survey to ED personnel, worked with data analytics to obtain IPV screening data, performed individual chart audits of the 21 patients screened for IPV, and helped design the HITS training for social workers which occurred in March 2021. **Outputs** are the immediate results of the actions and helped guide recommendations for the ED IPV screening program. Outputs included the number of surveys completed, the organizational assessment results, the chart audits results and EHR data and the number of social workers trained to use the HITS. **Outcomes** of the program evaluation included identification of a practice gap, the ED team's increased awareness of the importance of IPV screening, and recommendations for the ED IPV screening program.

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**Figure 3**

*Program Logic: Inputs, Activities, Outputs, And Outcomes*



*Note. The program logic reflects this program evaluation.*

**Step 4 and 5: Evaluation Design and Data Plan**

The fourth step in the ACI model, evaluation design, builds on the program logic and involves defining the specific questions that will guide the selection of appropriate measures, and indicators. The formative evaluation shaped the questions used to evaluate the IPV screening program in use. Additional questions posed by team members included: Is the current intimate partner violence screening program meeting TJC standards and what parts of intimate partner violence screening program are most effective?

In Spring 2021, the injury prevention coordinator, the author, and the ED’s lead social worker trained 12 ED social workers to administer the HITS tool in the ED and document the results. Due to the impact of the global COVID–19 pandemic in 2020 on hospital utilization,



2019 was chosen as a more comparable baseline pre-HITS training for this project rather than the pandemic year of 2020. Pre-HITS implementation in 2021, three screening tools available for use in the EHR: The Abuse Assessment Screen (AAS), Suspected Abuse/Neglect, and the Abuse Screening assessment. However, due to low volume of IPV screening tool results (1 completed screen) in the EHR in 2019, this plan was modified and the period for EHR data was expanded to include 2020. Therefore, pre-HITS data included the years 2019-2020 used to compare to post-HITS implementation data in 2021.

The data plan included the comparison of data to determine if the current ED IPV screening program was effective. The data plan included 11 data elements from two primary sources of data: the EHR and ED personnel. Ten EHR data elements for patients greater than 18 years of age admitted to the ED between January 1, 2019, and December 31, 2021, were chosen by the author and the evaluation team. EHR data Adult admissions are estimated as 75 % of the total number of annual ED admissions which is publicly reported and was validated with the team. Based on the ICD – 10 codes provided by the practice site’s trauma registrar, the author categorized the traumas into four main mechanisms of injury (MOI): trips and falls, assault, IPV, and motor vehicle crashes/other. FNE consults data provided by the FNE team (K. Coggins RN, FNE, personal communication, February 3, 2022). EHR data was retrieved by the clinical analyst and analyzed by the author and clinical analyst to answer the following questions:

1. How many adult patients were admitted to the ED? How many were trauma? How many were non-trauma?
2. What are the demographic of the adult patients admitted to the ED: age, gender, race, marital status, and insurance status (insured/non-insured)?

3. In the trauma patients admitted to the ED, what is the breakdown of the types of trauma/injuries/mechanisms of injuries (MOIs)?
4. Of the trauma patients how many received forensic nurse examiner (FNE) consults?
5. How many adult patients had a primary screen for IPV documented in the EHR? What was the role of the clinician completing the primary screen: nurse, advance practice provider, social worker, physician, other?
6. Of the adult trauma patients who had a documented IPV screen, how many of these were positive? How many of the non-trauma patients had a positive IPV screen?
7. Of the adult trauma patients who had a documented IPV screen, how many of these were positive? How many of the non-trauma patients had a positive screen?
8. Of the adult trauma and non-trauma patients with a positive primary IPV screen, how many social work referrals were ordered in the EHR?
9. In trauma and non-trauma patients with a positive IPV secondary screen, how many and what kind of referrals to community agencies were made?
10. Of the adult trauma patients and non-trauma cases with a positive primary screen, how many consults were made to the FNE Team?
11. To assess barriers and facilitators to IPV screening, the team and the author developed an IPV screening questionnaire consisting of 17 questions.

The eleventh data element asked the question what are the barriers and facilitators to IPV screening? This tool was administered to ED personnel (see Figure 4). The team evaluated the eleven data elements from outputs and identified practice gaps used to determine effectiveness of the IPV screening program. The author developed recommendations based on the outcomes of the program evaluation and the review of literature to address practice gaps.

**Figure 4**

*IPV Screening Questionnaire*

**Intimate Partner Violence (IPV) Screening:  
What is your perspective?**

Staff RN (full-time)      
 Social worker      
 ED Physician   
Staff RN (part-time)      
 Nurse Practitioner   
Travel RN contract      
 Physician Assistant

**Likert scale key: 1 = none 2 = very little 3 = somewhat 4 = frequently 5 = all the time**

**Barriers to screening for IPV**

• Takes too much time / I am too busy	1	2	3	4	5
• Knowledge of IPV and how to screen	1	2	3	4	5
• Unsure of the protocol / UVA policy	1	2	3	4	5
• Comfort level with asking sensitive questions	1	2	3	4	5
• Screening questions are difficult to locate in EPIC	1	2	3	4	5
• No "safe" space to discuss screening questions	1	2	3	4	5
• Staffing is too limited	1	2	3	4	5
• Unaware that initial screening at time of intake is part of the RN role	1	2	3	4	5
• Language barriers / using the translator phone	1	2	3	4	5
• Lack of follow-up when patient declines to answer	1	2	3	4	5

Other: \_\_\_\_\_

**Facilitators (helpful) to screening for IPV**

• Time to screen for IPV is adequate	1	2	3	4	5
• Education / training / orientation for IPV screening	1	2	3	4	5
• There is a "safe" space to screen	1	2	3	4	5
• Access to social workers	1	2	3	4	5
• Access to forensics examiners	1	2	3	4	5
• Staffing is adequate	1	2	3	4	5

Other: \_\_\_\_\_

**You are welcome to describe your IPV screening experiences in this ED**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Step 6 and 7: Implementation and Communicating Results**

The data plan was implemented in step 6 and results disseminated in Step 7. Prior to implementation, the author submitted the proposal for Institutional Review Board (IRB) determination. The IRB determined that an IRB review was not required for this project.

Implementation began once the first five steps of the ACI framework were in place including data collection and analysis of the data elements outlined in the data plan.

Baseline and comparison data were collected per the data plan (see Table 1). Meetings with the evaluation team members were conducted as needed to inform the implementation, data collection/analysis as described in the planning phase. All data were kept confidential and stored in a locked space. Additionally, the author performed a chart audit of the 21 patients screened for IPV from 2019–2021 for which aggregate data is provided in Table 2. The author found that most patients screened were females (86 %) with an average age of 46 and most screened positive for IPV using the HITS tool. Furthermore, most were trauma patients (67 %) insured with Medicaid (67 %).

**Table 1**

*Data Plan, Element Source, and Results*

Data element Jan 1, 2019–Dec 31, 2021 Adult patients aged 18 +	Data Element source	Results			
		2019	2020	2021	Total
1. How many adult patients were admitted to the ED (18 and older)? How many were trauma? How many were non-trauma?	EHR	Adult ED admissions			
		48,177^	45,288^	43,275^	136,740^
		Adult ED non-trauma			
		46,487^	43,635^	41,571^	131,693^
		Adult trauma			
		1,690	1,653	1,704	5,047
2. What are the demographic of the adult patients (18 years of age and older) admitted to the ED: age, gender, race, marital status, and insurance status (insured/non-insured)?	EHR	*			
3. In the trauma patients admitted to the ED, what is the breakdown of the types of trauma/injuries/mechanisms of injuries (MOIs)?	EHR	Trips and falls			
		697	689	774	2160
		Assault			
		48	56	48	152
		IPV			
		1	2		3
		Motor Vehicle Crashes and other			
		944	906	882	2732
4. Of the trauma patients, how many received FNE consults?	Forensics team	FNE consults for IPV			
		63	65	78	206
		FNE consults for strangulation			
		49	36	35	120
		Adult forensic patients (not IPV or strangulation)			
		323	260	309	892
Total adult forensic patients					
		435	361	422	1,218

Data element Jan 1, 2019–Dec 31, 2021 Adult patients aged 18 +	Data Element source	Results			
		2019	2020	2021	Total
5. How many adult patients had a primary screen for IPV documented in the EHR? What was the role of the clinician completing the primary screen: nurse, advance practice provider, social worker, physician, other?	EHR				
		♣ 1	♣ 1	♣ 19	♣ 21
6. Of the adult trauma patients who had a documented IPV screen, how many of these were positive? How many of the non-trauma patients had a positive screen? (See Table 2)	EHR	Positive screens			
		1		17	18
		Negative Screens			
			1	2	3
7. Of the adult trauma and non-trauma patients (18 years and older) with a positive primary IPV screen, how many social work referrals were ordered in the EHR?	EHR / social work team	All social work consults for positive screens requested in person, not EHR			
		1*		17*	18*
		Total ED social consults for pediatric and adult patients			
		9,402‡	9,163‡	9,053‡	27,618‡
8. In trauma and non-trauma patients with a positive IPV secondary screen (HITS tool), how many and what kind of referrals to community agencies were made?	EHR	Domestic Violence Shelters			
				12	12
		Psych			
		1			1
		Police			
				3	3
		Education resources			
				1	1
		Adult Protective Services			
				1	1
Financial resources					
		1	1		

Data element Jan 1, 2019–Dec 31, 2021 Adult patients aged 18 +	Data Element source	Results			
		2019	2020	2021	Total
9. Of the adult trauma patients and non-trauma cases with a positive primary screen, how many consults were made to the FNE Team?	EHR			6	6
10. Since the HITS program was formally implemented, how many secondary screens using the HITS were completed in trauma and non-trauma patients?	EHR	HITS screens completed for non-trauma patients			
				4	4
		HITS screens completed for trauma patients			
				13	13
11. Barriers and facilitators to IPV screening	17-item Likert Scale questionnaire	See Table 3 and Figure 5			

*Note: ^ = estimation, ✕ = pediatric and adult patients, \* = consults requested in person, ‡ = unable to obtain this data from EHR, ♣ = completed by social worker. per the ED nurse educator recommendation with team concurrence (2022) (personal communication, M. Sutherland, February 17, 2022). Empty cells = zero.*

**Table 2**

*Demographics and Consults of Patients Screened for IPV From 2019–2021*

Characteristics	Trauma Patients n = 14			Non-trauma patients n = 7		
	At risk for IPV	Positive Screen	Negative screen	At risk for IPV	Positive Screen	Negative screen
<b>Gender</b>						
Female	10	1	2	2	4	
Male	1					1
<b>Years of age</b>						
Average	44	43	49.5	46.5	52.5	33
Median	43	43	49.5	46.5	56	33
Mode	24					
<b>Trauma type</b>						
Fall	4	1	1			
Assault	2					
Strangulation	4					
MVC	1					
IPV			1			
Non-trauma				2	4	1
<b>Consults</b>						
FNE consult	6					
Social work consult	11			2	4	1
<b>Social work referral</b>						
IPV shelter	6	1		2	3	
Psychiatry					1	
Transportation						1
Education	1					
Police	3					
Financial	1		1			
Adult Protective Services	1					
<b>Insurance type</b>						
Medicare	1	1	1			
Medicaid	6		1	2	4	1
VA	1					
Private insurance	1					
No Insurance	2					



Characteristics	Trauma Patients n = 14			Non-trauma patients n = 7		
	At risk for IPV	Positive Screen	Negative screen	At risk for IPV	Positive Screen	Negative screen
<b>Transportation to ED</b>						
EMS	7	1	1	2		1
Walk-in	4		1		3	
Direct admit					1	

*Note. Empty cells indicate a zero value. Patients identified as at risk for defined IPV received HITS scores > 11. Positive HITS screen > 4. HARK or Abuse Screening Tool. Trauma is any sustained injury. Non-trauma is no sustained injury. Positive screens were obtained using the HITS and HARK tools.*

The IPV screening questionnaire was used to identify barriers and facilitators to IPV screening. The author and the IPV screening team developed a paper and pencil style questionnaire for ED personnel. This tool was administered in August 2021. The author in consultation with the ED nurse manager, attended shift changes four times within the same week. The author presented a 1-minute summary of the goal of the IPV screening program evaluation and the intent of the questionnaire to identify barrier or facilitators to completing the primary IPV screen on newly admitted ED patients. The respondents were instructed on how to navigate the questionnaire and where to place completed questionnaires. Respondents took an average of 5 minutes to complete the form. The author, with permission from the nurse manager, provided the same 1-minute summary in the ED provider and social worker work room.

Most nursing respondents completed the questionnaire in the staff lounge. ED providers and social workers completed the surveys in their work rooms. Upon completion, the respondents were asked to place their questionnaires into a secure, opaque box labeled as “Completed Intimate Partner Violence Screening Questionnaires, Thank you!”. The author was listed as the point of contact on the box. A handful of respondents requested to complete the

questionnaire later. The author retrieved the box from the charge nurse station at the end of the week to allow ample time for respondents to complete the surveys.

The questionnaire used a Likert scale from one (none), to two (very little) to three (somewhat) to four (frequently) to five (all the time) to answer this main question: How often are these factors a barrier or facilitator to completion of the primary IPV screen on all newly admitted ED adult patients? Ten of the questions focused on barriers to IPV screening, six questions focused on facilitators to IPV screening, and one question invited respondents to describe their screening experiences in the ED. The complete questionnaire can be found in Figure 4.

Forty-nine ED RNs, ED physicians, social workers and one emergency medical technician (EMT) completed the questionnaire. This 49 included the planning team of five participants. The respondents consisted of 28 full-time nurses (56 %), three part-time nurses (6 %), six travel nurses (12 %), six unidentified respondents (12 %), four emergency room physicians (8 %), two social workers (4 %), and one EMT.

The results of the questionnaire were entered by hand into Qualtrics, a web-based program and exported to the Statistical Package for the Social Sciences (SPSS). SPSS The questionnaire had a Cronbach's Alpha of 0.792 which is considered an acceptable rating. A Cronbach's Alpha is a measure of internal consistency and a score of 0.7 or greater is considered acceptable (Plichta, 2013).

The original 5-point Likert scale was condensed into a 3-point scale for clear visualization of results. Categories none and very little were combined and categories frequently and all the time were combined. Thus, the questionnaire results shown in Figure 5 are based on

the Likert scale: 1. None or very little 2. Somewhat 3. Frequently or all the time. This adjustment enhanced the identification of barriers and facilitators.

The 49 respondents identified these barriers to IPV screening:

- 74 % identified that lack of knowledge about IPV screening was a barrier sometimes, frequently, or all the time.
- 70 % reported that lack of follow up with patients who decline to answer was a barrier somewhat, frequently, or all the time.
- 68.8 % answered that being unaware that the RN was responsible for IPV screening was a barrier to IPV screening somewhat, frequently, or all the time.
- 66 % of the respondents reported that lack of familiarity with the IPV screening policy/protocol was a barrier somewhat, frequently, or all the time.
- 64 % identified location of the IPV screening questions in the EHR was a barrier somewhat, frequently of all the time.
- 44.9 % identified that lack of time or being too busy was a barrier somewhat, frequently or all the time.

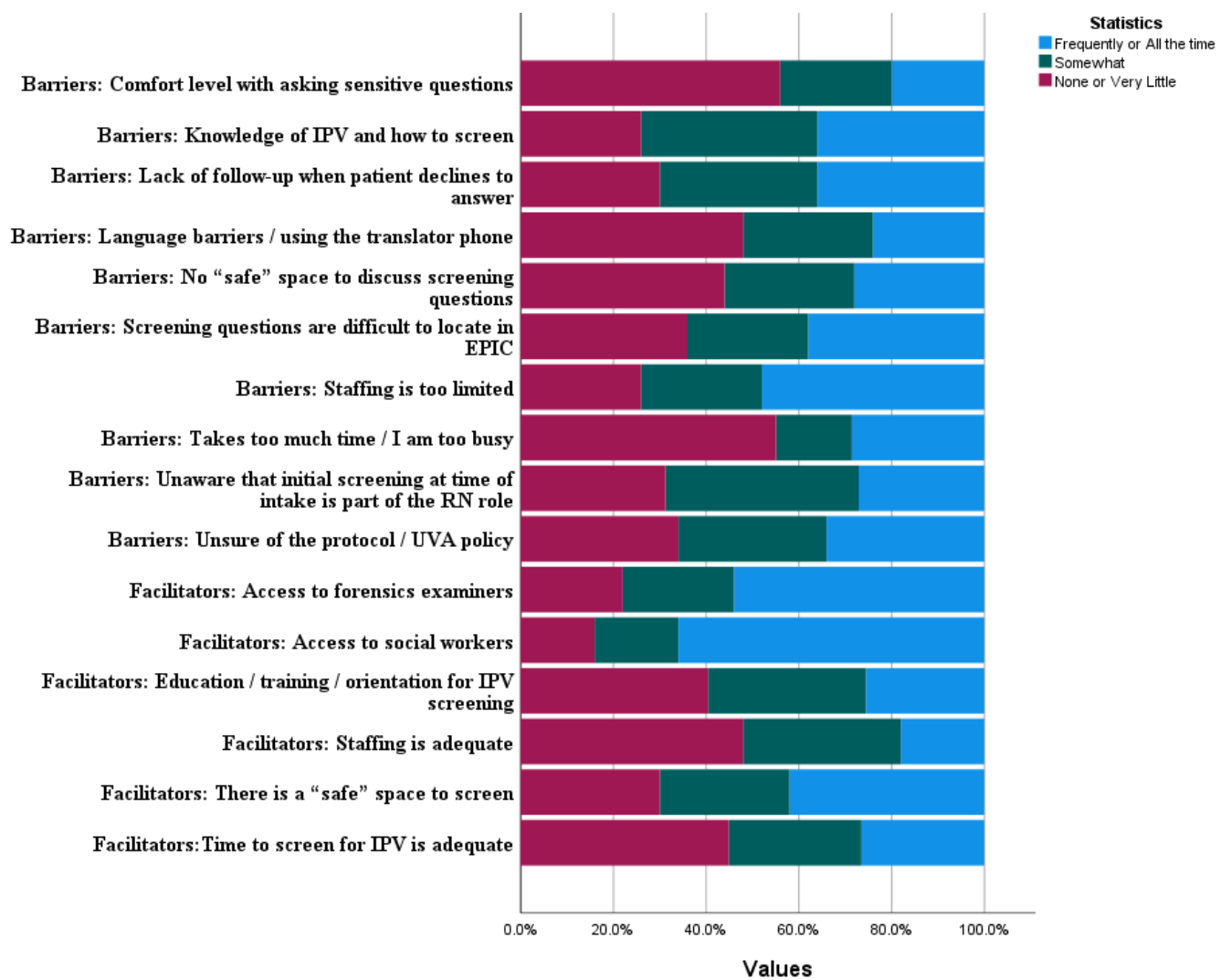
ED personnel were also queried about facilitators to IPV screening

- 70 % felt that a safe space to screen was a facilitator somewhat, frequently or all the time.
- 66 % reported access to social workers was a facilitator frequently or all the time.
- 66 % reported access to FNEs as a facilitator frequently or all the time.
- 55.1 % felt that adequate time to screen was a facilitator somewhat, frequently, or all the time.
- Only 18 % reported staffing as adequate frequently or all the time.

The barriers most frequently identified in the questionnaire were lack of knowledge (74 %), and lack of follow-up (70 %), and unawareness that the RN was responsible for IPV screening (68.8 %). The facilitators most frequently identified in the questionnaire were safe spaces to screen (70 %), and access to social workers (66 %) and FNEs (66 %).

**Figure 5**

*Facilitators and Barriers to IPV Screening*



*Note: Bar graph generated in SPSS using descriptive statistics*

The seventeenth survey question was: “You are welcome to describe your IPV screening experiences in this ED.” Sixteen respondents wrote comments on their questionnaires. Table 3 lists the responses to this question. Twelve of the 16 comments related to the lack of education and training as a barrier to IPV screening while others pointed to the EHR and lack of follow up.

**Table 3**

*Open Ended Answers to IPV Questionnaire*

Questionnaire Item 17 Responses	Barrier identified
<ul style="list-style-type: none"> <li>• “I’m a travel RN, I may or may not know or have the time to learn everything before I’m off to the next assignment” (travel nurse)</li> <li>• “I have never used it” (travel nurse)</li> <li>• “I typically ask the questions only when the injuries or behavior of the patient / significant other / family indicates that it may be a problem” (full-time nurse)</li> <li>• “There are none!” (full-time nurse)</li> <li>• “Did not know there was a screening process in the ER or in the EHR at all” (full-time nurse)</li> <li>• “I’m a new hire needs to review hospital policy on this and more exposure” (full-time nurse)</li> <li>• “We don’t have a well-established screening process here in the ED to my knowledge and if we do, we are severely lacking in compliance and education regarding the process” (full-time nurse)</li> <li>• “Unaware of any screening done in ED or where to locate but will be a great and needed addition” (full-time nurse)</li> <li>• “We don’t do this” (full-time nurse)</li> <li>• “We don’t receive education or rounds, new interns unaware of forensic processes” (full-time nurse)</li> <li>• “There is no screening tool in our triage flowsheet. Triage is "public" in the waiting room” (full-time nurse)</li> <li>• “At other hospitals it was made part of "triage" questions that had to be asked. Not any more currently” (part-time nurse)</li> <li>• “It is difficult to get all the doctors on board when suspicion is raised. They need training! Also, it is hard to separate patient and significant others without causing a high degree of anxiety for patient.” (part-time nurse)</li> </ul>	<p>Education and training</p>

<ul style="list-style-type: none"> <li>• “unaware of any screening done in ED or where to locate but will be a great and needed addition” (full-time nurse).</li> </ul>	<p>Difficult to locate tool in EHR:</p>
<ul style="list-style-type: none"> <li>• “It is difficult to get all the doctors on board when suspicion is raised. They need training! Also, it is hard to separate patient and significant others without causing a high degree of anxiety for patient.” (part-time nurse)</li> </ul>	<p>Follow up</p>

*Note. No facilitators identified within the responses.*

Utilizing the formative evaluation, the author answered the following questions to determine the effectiveness of the IPV screening program:

1. Is the current IPV screening program meeting TJC standards and if so, how are we meeting TJC standards?
2. What are the barriers and facilitators to consistency and compliance with IPV screening?
3. What is known about consistency and compliance with IPV screening?

The team concurred with the questions with no modifications recommended. These questions guided the selection of appropriate measures, and indicators that were decided by the evaluation team.

1. Is the current IPV screening program meeting TJC standards and if so, how are we meeting TJC standards? At the practice site, policy HR 0213 requires that upon initial assessment, health care professionals screen all patients for abuse and neglect and shall refer all suspected cases to Social Work (Hall, 2020, p. 1). The TJC requires hospitals to have policies for the identification, evaluation, management, early identification, and referral of patients that are victims of IPV. The organizational assessment completed by the doctoral student indicated, anecdotally, that adherence to policy HR 0213 was inconsistent and there was poor compliance with utilization of the screening tools in the EHR.

2. What are the barriers and facilitators to consistency and compliance with IPV screening? The most identified barriers to IPV screening were time and “being too busy” followed by lack of knowledge on how to screen. The biggest barriers revolved around education and training: unsure of the protocol / policy; unawareness that screening for IPV on initial intake of the patient was part of the RN’s role, and screening tools questions being difficult to locate in the EHR, and lack of follow up. The most identified facilitators to IPV screening were safe spaces to screen, access to social workers and access to FNEs.

3. What is known about consistency and compliance with IPV screening? Once EHR data was collected, low compliance with TJC standards and hospital policy was evidenced by the completion of only 21 IPV for the three-year period, 2019-2021. Per hospital policy and TJC standards, all adult patients should be screened for IPV. Therefore, 136,740 screens should have been completed over the three-year period. However, only one IPV screening using the HARK tool was completed, by a social worker, in 2019 as found in the audit of the EHR. In 2020, one IPV screening assessment was completed by social work. After the targeted education on use of the HITS tool in Spring 2021, 19 HITS screenings were completed by social work as found in the EHR. No screenings by nursing staff using a validated tool, were recorded in the EHR by nursing staff between 2019 to 2021.

The percentage of compliance was estimated to be 0.015 %. This compliance rate was calculated by dividing the total number of screenings found in the EHR (21) for patients admitted between January 1, 2019, through December 31, 2021, by the estimated number of adult ED admissions (136,740). These results show that consistency and compliance with IPV screening is poor.

Prior to Spring 2021, there was no formal process for screening in the ED patient intake workflow. Despite the lack of a consistent process, 206 FNE consults for IPV were found in the EHR, suggesting that ED personnel were identifying some patients at risk. This data shows that the ED is not meeting the TJC standard for IPV screening and referral to social services.

The team requested a preliminary summary of the results of the program evaluation. The preliminary summary was presented in a situation, background, assessment, recommendation (SBAR) format. The recommendations were:

- Include the HITS screening tool in the adult assessment form in the EHR.
- Create a “hard stop” within the adult assessment form for the HITS screen with comment section.
- Provide a social work consultation link within the adult assessment tool (send consult for a positive HITS screen = any “yes” response to HITS).
- Include IPV screening training in the use of the HITS tool in the RN unit orientation to include where, when, and how to screen and how to document in the patients’ charts.

The team had concern that adding the HITS training to an already full nursing orientation would make the orientation too long. Providing in-services was discussed as an option, however the question arose of how to provide the training to all four nursing shifts. Furthermore, with the high turnover rate, the in-services would need to be provided frequently to accommodate the frequent new nursing hires.

The team provided their advice about the sustainability of the recommendations. The team agreed with the recommendations with the following exceptions: The team requested the HITS tool score be modified to the following: 0 = "never", 1 = "rarely", 2 = "sometimes", 3 = "fairly often", 4 = "frequently". The score range would be 0 to 16 rather than 4 to 20. The caveat



for social work was with the traditional HITS scores range of 1-5, a score of 10 or greater in females and 11 or greater in males would classify one as victimized. The score 0 to 16 could help reduce confusion of what score is considered a positive score (any score one or greater) compared to a positive score with the non-modified HITS tool (a score of five or greater). To ensure the score modification was equivalent to the non-modified score, a score of 6 or greater in females and 7 or greater in males would classify one as being victimized. The author's practice site obtained permission from the developers of the tool, to modify the tool. The stipulation to modification was ensuring the tool's sensitivity was not decreased. In other words, the tool was not to be modified in such a way that it becomes more difficult to obtain a positive score (E. Horton, personal communication, January 24, 2022). The HITS tool should be clearly marked as modified within the EHR. The team is aware that modifying the HITS tool may limit future multi-site research participation.

The nurse manager invited the team to shadow the workflow of the triage nurse and staff nurse to determine if the adult assessment form was the most efficient location for the HITS tool. These observations confirmed that the adult assessment form in the EHR was the optimal location for the HITS-modified screening tool and fostered staff nurse buy-in. Due to the lack of private spaces for screening it was requested that the triage nurse have a process available to flag patients in triage in the EHR for suspected abuse. The triage nurse can flag patients based on chief complaints and presentation. The electronic flag will be visible to ED nurses and physicians and a safe environment can be prepared to screen the patient for IPV. The team determined that it was important to have a process for identifying patients at risk for IPV in triage as a second layer of IPV identification.

After presentation of the executive summary and recommendations to the team, one modification was made. The recommendation to include a prompt will appear “Do you want to order a consult for this patient?” was removed due to concern of burden on the nurse and social work consults will be initiated by the HITS score greater than one.

A final executive summary (appendix B) including recommendations was presented to the stakeholders and administration at the completion of the project. The recommendations presented were:

1. Embed HITS tool in the EHR nursing adult assessment form in the EHR.
2. Create a “hard stop” for HITS screen in the adult assessment form with a comment section.
3. Create an option of "screening not done at this time" in the EHR with a drop-down menu.

The dropdown list of reasons for deferment are:

- a. "patient refused"
  - b. "patient medically unable or unavailable"
  - c. "unable to safely screen patient at this time"
  - d. “patient altered, unable to screen at this time”
4. Score each HITS modified screening question from 0 to 4 creating a score range of 0 to 16. A score of greater or equal to 6 in females and a score of greater or equal to 7 in males classifies as being victimized. There are four questions on the HITS-modified and the scale ranges from never (0) to frequently (4). Ensure the modified HITS tool is labeled as modified.

5. Place automatic consult order in the EHR with pop-up for social worker consult if HITS score greater or equal to one. The HITS screenings will be performed by the bedside nurse.
6. Place automatic consult order in EHR with pop-up for both social workers and FNEs for HITS score greater or equal to 6 (at risk for IPV).
7. Place flag in the EHR to be triggered by the triage nurse when a patient is suspected of abuse so a safe and more private environment can be provided.
8. Include IPV screening training including the HITS-modified tool in multidisciplinary ED unit orientation. to include how, where, and when to screen, and where to document the screening. The training should include how to use the HITS-modified tool and emphasize the importance of screening patients away from friends and family.
9. Perform an annual evaluation of IPV screening in trauma and non-trauma patients admitted to the ED.

### **Step 8: Incorporating Findings**

The eighth and final step was incorporating findings used to determine the ongoing functions of the program. A formative evaluation was performed and the answered the following questions: what is known about the problem that the program will address, the accepted best practice, and what the research and evidence say about the problem.

There is strong evidence that IPV screening programs do improve outcomes. As discussed, 17 % of men and 33 % of women experience IPV (Ahmed et al., 2017) and nurses in the ED play a critical role in the identification, prevention, and management of IPV. Fifty-four percent of women that report to the ED have experienced IPV at some points in their lives with only 5 % of these women identified by health care professionals (Ahmad et al., 2017). One in 20

men that present to the ED are IPV survivors, and one out of seven trauma patients are men that screen positive for IPV (Zakrison et al., 2018). Head, neck, and face injuries were present in almost half of the patients that screened positive for IPV and patients with such injuries were more likely to report IPV-related injuries than those with injuries to other body regions (Perciaccante, & Carey, et al., 2010). Based on the volume of ED visits over a three-year period, the expected number of females and males screening positive for IPV would be approximately 36,920 and 6,837 respectively.

This program evaluation found that 21 IPV screenings were completed from January 2019 to December 2021, with 19 of the 21 screenings completed from March 2021 to December 2021 using the HITS tool. A total of 206 FNE consults suspected or confirmed IPV and a total of 119 consults for strangulation were completed from January 2019 to December 2021 and a total of 27,618 adult and pediatric patients social work consults were completed. The most commonly occurring barriers to IPV screening in the ED were lack of education and training, follow-up, and staffing. The barriers related to education and training were the following: lack of knowledge and how to screen, unawareness of the protocol and IPV screening policy, difficulty locating the screening questions, and unawareness that screening for IPV was part of the RN's role.

The most identified facilitators to IPV screening were a safe space to screen and access to social workers and FNEs. Access to forensics nurses was evident. A total of 206 FNE consults related to IPV and a total of 119 consults for strangulation were completed between January 2019 to December 2021.

The accepted best practice for identification of IPV in the ED is a dual approach that combines injury location with in-person screening (Perciaccante, & Susarla, et al., 2010, Perciaccante, & Carey, et al., 2010; DiVietro et al., 2018). This is evident in the number of

forensic consults requested by ED nurses in the author's practice site, especially considering most of the forensic consults are requested based on chief complaint and patient presentation. Furthermore, educating staff how to screen, the importance of screening, and policies and procedures of screening and response are vital to success. A key barrier to routine IPV screening was inadequate preparation and lack of education (Hugl-Wajek et al., 2012), however, standardization of universal IPV screenings was found to improve screening (DiVietro et al., 2018). Moreover, there is an implication of designating trained individuals such as domestic violence coordinators and / or social workers to conduct the IPV screening. The number of IPV screenings increased when performed by trained domestic violence coordinators and referrals almost always occurred when social workers were involved (Hugl-Wajek et al., 2012; Rhodes et al., 2011). As a result of this program evaluation and collaboration with the injury prevention coordinator, a domestic violence social worker was hired through the trauma department to consult IPV cases in the ED. A designated domestic violence social worker can ensure continuity and sustainability of the IPV screening program.

A report with actionable items was provided to the evaluation team. Submitting the program evaluation report to the IPV evaluation team with recommendations for implementation was the final step. The team will then choose to implement recommendations per their discretion. Prior to submitting for publication, the data findings and analysis will be presented to corporate compliance from the author's practice site for permission to release the findings from the program evaluation.

### **Summary and Conclusion**

IPV is prevalent in many patients admitted to the ED setting. Seventeen percent of men and 33 % of women experience IPV (Ahmed et al., 2017) and nurses in the ED play a critical

role in the identification, prevention, and management of IPV. Fifty-four percent of women that report to the ED have experienced IPV at some points in their lives with only 5 % of these women identified by health care professionals (Ahmad et al., 2017). Five percent men that present to the ED are IPV survivors, and 14 % of trauma patients are men that screen positive for IPV (Zakrison et al., 2018).

Though TJC and ACS require screening of every ED patient, compliance is highly variable. The IPV screening program in the ED of a mid-Atlantic academic medical center was evaluated using a systematic framework developed by the ACI. Only 21 IPV screening tools were found in the charts of patients in a three-year period with an estimated total ED admission rate of 136,740 patient admissions. Thus, it is safe to assume that patients at risk or victimized by IPV were not identified and, therefore, did not receive the standard of care. A new program requiring a social worker to complete the IPV screening using the HITS tool after the nurse completes initial screening is showing promise to increase compliance with TJC standards and hospital policy.

This program evaluation led to nine recommendations that can improve not only the site's compliance with hospital policy and TJC standards but also improve outcomes for the vulnerable population at risk of IPV. Removing barriers such as knowledge deficit and poor staffing and enhancing facilitators such as access to a FNE team or social worker can support better patient outcomes. Considering the sobering statistic that 50 % of women who died from IPV were seen by a provider a year before their death (Aboutanos et al., 2019), implementing the recommendations from this program evaluation and continuing annual audits of compliance with TJC standards has significant potential to consistently improve patient outcomes.

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## Appendix A

Literature Review Table

Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
Bazargan-Hejazi et al., 2014)	Cross-sectional study	Inner city ED Survey	Survey by method of interview, using the 5- to 10-min “Five Steps in Screening for IPV”	No significant differences in gender, age, significant associations in the IPV group with binge drinking, and childhood experiences of observing parental violence.	III A  Inability to generalize. Small sample size of IPV population, data was self-reported.	Face-to-face screening
(Chapin et al., 2011)	Quasi-experimental	A large hospital system in Pennsylvania. Sample included: medical students (76%), nurses (22%) and	Self-efficacy, knowledge of services, obstacles to victims leaving, access to services, and usefulness of screening tools was measured	Age, gender, or hospital position did not affect self-efficacy. Participants were better informed after IPV training about IPV services and	II A  A convenience study	Education

Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
(Choo, and Nicolaidis, et al., 2012)	Observational study.	Oregon EDs	Billing data, survey results, and hospital-level variables were combined. Likelihood of receiving a diagnosis of IPV depending on the policies and services available was assessed.	<p>obstacles faced by victims. Self-efficacy predicted successful goal attainment.</p> <p>following IPV training. Responses were on a Likert-type scale</p> <p>Mandatory IPV screening and victim advocates were the most commonly available IPV resources. IPV was diagnosed independently with the use of a standardized intervention checklist (odds ratio: 1.71; 95 % CI: 1.04 – 2.82). Public displays of IPV material were negatively associated with IPV diagnosis (OR 0.56; 95</p>	<p>III A/B</p> <p>The primary outcome of the study (IPV diagnosis) was reliant on documentation and coding.</p>	Face-to-face screening

Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
				<p>#: CI 0.35 – 0.88).</p>		
(Choo et al., 2015)	Qualitative	A single, urban, academic ED in the northeastern U.S./women with histories of partner and drug use	One-on-one semi-structured interviews via computer to detect partner abuse using the Women's Abuse Screening Tool (WAST).	Computer-based drug use and partner abuse screening in the ED was effective and could shield them from embarrassment and fear.	III A/B Access to technology, findings may not be generalizable to rural women. Convenience study.	Computer-based screening
(Choo, and Ranney, et al., 2012)	Systematic review of observational and experimental studies, including 2 RCTs.	Studies regarding use of computer-based technologies for ED-based screening, interventions, or referrals for high-risk health behaviors	Systematic search using Downs and Blacks instrument	Studies showed high acceptability and feasibility of individual computer innovations.	III A Study quality varied greatly. Lacking well-validated quality assessment instruments.	Computer-based screening

Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
(Delgado et al., 2011)	Non-experimental Quantitative	randomly sampled 350 (7%) of 4,874 EDs across the US. 277 EDs responded to the survey across 46 states.	Survey inquiring if a system is in place for identifying IPV, if not, could this service be rendered with your current staff and funding?	Cost, increased ED length of stay, resource allocation, and inadequate access to follow-up are barriers to implementation. 1 /3 of hospitals are not meeting JCAHO mandates for IPV screening.	III A  May not be generalizable to high volume urban EDs. Survey questions and terminology have not been validated in previous research.	Focus on the importance of screening and JCAHO requirements and awareness of failure to meet benchmarks.
(DiVietro et al., 2018)	Quasi-experimental, epidemiologic study	586 eligible trauma patients from a level 1 trauma center	Conflict Tactics Scale-2 (CTS-2) computerized screening vs in person screening using the E-HITS/HITS screening tool.	More positive screenings with the computerized screening tool than with the in-person screening tool and more positive screenings with the 2 tools used together.	II A  Only trauma patients were used in this study.	Dual-method screening combined face to face screening and computer-based screening.



Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
(Hugl-Wajek et al., 2012)	retrospective review	Female patients Level I trauma center with over 80,000 patient visits yearly	Interview with a trained DV advocacy coordinator	The incidence of DV was calculated to be 4.8%. The use of a trained DV coordinator may improve detection rates of domestic violence in the ED.	II B  The DV advocate’s method of screening was not standardized, and tool’s validity and reliability were not discussed.	Education
(Perciaccante, and Carey, et al., 2010)	Cross sectional study design	Women who presented to a level 1 trauma ED in Atlanta, GA for injuries with non-verifiable etiology.	Combined injury location with interview screening using the PVS or WAST tool.	Combining information regarding injury location and the results of a screening questionnaire was a better predictor of a woman’s likelihood to report IPV-related injuries than either modality alone.	III A Sample was 90-95 % African American which may have an impact on IPV self-reporting rates. Interviewing times was based on the availability of the interviewers.	Dual-method approach. combined face-to-face screening and presentation to the ED (location of injuries).

Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
(Perciaccante, and Susarla, et al., 2010)	Cross sectional study design	Women who presented to a level 1 trauma ED in Atlanta, GA for injuries with non-verifiable etiology. The study sample was divided randomly into index and validation sets.	The predictor study variables were injury location (head, neck, or face vs other), responses to a verbal questionnaire (PVS or WAST) and combining both elements. The probability for IPV-related injury was classified as high or low.	The index set was used to develop the diagnostic protocol which combined the Women Abuse Screening Tool (WAST) questionnaire with injury location and was proven to have good to excellent internal validity.	III A  Sample was 90-95 % African American which may have an impact on IPV self-reporting rates.	Dual-method approach combined presentation to ED (injury location) with a face-to-face screening
(Randell et al., 2018)	Cross sectional study design	Female victims of IPV in a semi-rural Midwestern County: One ED is a level 1 urban trauma center,	IPV poster and pamphlets that convey hope compared to traditional posters that show graphic images or texts.	Posters did not encourage or discourage patients from being screened for IPV. Personal history of IPV was the biggest	III A  Generalizability is limited by recruitment within a single institution, lack of data on those	Education (of patients)

Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
		1 suburban community ED, and 1 subspecialty clinics. Total of 130,000 patient care visits annually		determination of willingness to be screened.	who did not participate.	
(Rhodes et al., 2011)	Retrospective longitudinal cohort study	Female victims of IPV in a semi-rural Midwestern County.	County-wide ED and criminal justice records for all female IPV victims identified by police and prosecutors were examined.	When police brought the victims to the ED, the odds that IPV would be noted by ED staff were doubled. Referrals almost always occurred when a social worker was involved.	II A Retrospective study and IPV cases that did not reach the level of a police report were not captured.	ED presentation Identification of IPV related to ED presentation
(Robinson, 2010)	phenomenological qualitative	ED nurses from a mid-sized urban county in the	A structured open-ended interview technique was	Only 5 nurses could recall formal education on	III A/B Small sample, does not represent all ED nurses	Education

Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
(Rodriguez, 2019)	Cross sectional study design	Clients of Sojourner Family Peace Center in Milwaukee, WI. Serving over 9500 victims per year	22 questions assessing women’s encounters with screening and treatment for domestic violence in the ED. Questions range from	<p>used consisting of 10 primary questions. Significant statements from the interviews were formulated into meanings and then categorized into themes.</p> <p>IPV, and only 3 could recall any continuing education on IPV. Most do not screen for IPV and do not believe it is necessary. Many were unaware of written policies and regulations regarding mandatory reporting IPV.</p> <p>IPV screening must be done with no family present. Removing law enforcement from rooms is recommended. Standardizing screening could aid in making IPV victims</p>	III A Small Sample Size	Face-to-face screening and education

Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
(Schrager et al., 2013)	prospective cohort study	All female adult patients. 3 urban EDs, using a computer kiosk to deliver targeted education about IPV to provide referrals to local resources.	Participants who screened positive on the UVPSP completed the danger assessment (DA) instrument at a kiosk and assigned a baseline stage of change using the University of Rhode Island Change Assessment (URICA) scale and assessed at 1 week and 3 months to assess safety behaviors to prevent further IPV.	yes/no to open-ended.  feel less rushed and more at ease.  ED-based kiosk screening and is a feasible method of disseminating health information for women experiencing IPV and associated with a high proportion of participants taking protective action following the computer-based screening and intervention.	II A  Random sampling of women in the triage waiting area; does not fully capture the IPV population.	Computer-based screening

Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
(Scribano et al., 2011)	prospective cohort study	Computerized screenings in an Urban pediatric ED	Computerized home safety screening kiosks were developed using touch-screen technology (Health eTouch).	14 % of the computerized screens were positive for IPV (similar prevalence rate, 4 % - 25 %). Allows unobtrusive, private screening for IPV.	II B IPV screening tool reliability and validity were not discussed. The screening process was modified during the study which could have skewed screening rates. Data not provided prior to implementation.	Computer-based screening
(Williams et al., 2016)	epidemiologic, cross-sectional, observational study	Healthcare facilities in a large metropolitan area in the USA	In-depth interviews with individuals knowledgeable about IPV screening and response	Need for procedural guidance, formal screening tools, education for providers and patients, local resources.	III A/B Small number of nurse participants in the study only 3 were nurses. No measure to the fidelity of the	Education

Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
(Wolff et al., 2017)	Quasi-experimental	Patients in a US urban ED setting that screened positive	Face-to-face PVS conducted to assess for IPV victimization then randomly assigned into a basic or enhanced referral group.	20 % of participants screened positive for IPV. Both male and female victims of IPV had greater odds of contacting behavioral health resources with the enhanced referral. 74% of the enhanced referral group contacted services compared to 16% the basic referral group.	II A  PVS does not screen for psychological abuse. A convenience sample was used. This study was not fully blind.	Face-to-face screening  Identification of IPV related to ED presentation (recidivism)
(Yau et al., 2013)	Retrospective chart review	New York City Department	ED visits due to injuries inflicted by a	IPV victims were more likely to be	III A	Identification of IPV related to ED

Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
		of Health and Mental Hygiene’s Injury Surveillance System data from at least 20 public and private EDs.	spouse, ex-spouse, boyfriend, girlfriend, ex-boyfriend, or ex-girlfriend – as documented in the ED chart – were considered IPV-related assaults.	assaulted at home, have multiple injuries, head, and trunk injuries; location may be an efficient, effective complement to current IPV screening practices.	Data incompleteness is noteworthy but expected and is a reality of chart review-based surveillance.	presentation (injury location)
(Zakrison et al., 2018)	cross-sectional	Trauma patients at 4 level I trauma centers throughout the US	Universal screening of adult trauma patients using the validated HITS and SAVE (sexual violence) screening surveys.	Men are at similar risk for physical abuse as women for IPV. Center with dedicated behavioral psychologists performing the screenings had the highest rate of IPV positive screens for both men and women.	III A  Variability depended on who performed the screening, what patients were screened for, and where the screening took place.	Face-to-face screening and Education



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Reference	Design	Subjects and Settings	Intervention	Outcomes	Quality and Limitations	Themes
(Zakrison et al., 2017)	Cross sectional study design	Trauma patients at 4 level I trauma centers throughout the US	Universal screening using the validated HITS and SAVE (sexual violence) screening surveys done by clinical social workers, behavioral psychologists, or trauma RNs.	Patients who screened positive for IPSV (intimate partner sexual violence) have higher rates of trauma co-morbidities, including substance abuse, mental illness and at higher risk of trauma recidivism	II A  Variability depended on who performed the screening, what patients were screened for, and where the screening took place.	Dual method approach: Identification of IPV related to ED presentation (trauma recidivism) and face-to-face screening

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## Appendix B

### Intimate Partner Violence (IPV) Screening Program Evaluation

#### Executive Summary

##### Situation

- Total of 21 IPV screens from Jan 2019 to Dec 2021 in the emergency department (ED).

##### Background

1. **The Joint Commission standard:** Hospitals are mandated to implement policies and procedures that allow for early identification and referral of IPV.
2. ED Policy 0213: Screen all patients for abuse and neglect. Refer all suspected cases to Social Work.
3. **HITS screening tool** is recommended by the American College of Surgeons Trauma Quality Programs Best Practices Guidelines For Trauma Center Recognition Of Child Abuse, Elder Abuse, and IPV.

##### Assessment

1. Compliance with IPV screening does not meet TJC requirement or ED unit policy.
2. IPV screening tools are difficult to locate in EPIC.
3. IPV screening is currently not included in the ED orientation.

##### Recommendations

1. Embed HITS tool in the EHR nursing adult assessment form in the EHR.
2. Create a “hard stop” for HITS screen in the adult assessment form with a comment section.

3. Create an option of "screening not done at this time" in the EHR with a drop-down menu.

The dropdown list of reasons for deferment are:

- a. "patient refused"
  - b. "patient medically unable or unavailable"
  - c. "unable to safely screen patient at this time"
  - d. "patient altered, unable to screen at this time".
4. Score each HITS modified screening question from 0 to 4 creating a score range of 0 to 16. A score of greater or equal to six in females and a score of greater or equal to seven in males classifies as being victimized. There are 4 questions on the HITS-modified and the scale ranges from never (0) to frequently (4).
  5. Place automatic consult order in the EHR with pop-up for social worker consult if HITS score greater or equal to one. The HITS screenings will be performed by the bedside nurse.
  6. Place automatic consult order in EHR with pop-up for both social workers and FNEs for HITS score greater or equal to six (at risk for IPV).
  7. Place flag in the EHR to be triggered by the triage nurse when a patient is suspected of abuse so a safe and more private environment can be provided.
  8. Include IPV screening training including the HITS-modified tool in multidisciplinary ED unit orientation to include how, where, and when to screen, and where to document the screening. The training should include how to use the HITS-modified tool and emphasize the importance of screening patients away from friends and family
  9. Perform an annual evaluation of IPV screening in trauma and non-trauma patients admitted to the ED.