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Domestic Violence and Abuse screening in emergency department: A rapid review of the literature

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Abstract

Aim: The aim of the review was to identify intimate partner violence screening interventions used in emergency departments (ED) and to explore factors affecting intimate partner violence screening in EDs.

Background: Intimate partner violence against women is now clearly recognised as a global health and societal issue. Nurses working in emergency and urgent care settings can play a crucial role in identification, prevention and management of intimate partner violence. Research exploring optimal methods of IPV screening and factors affecting intimate partner violence screening in EDs is relatively limited.

Design: Literature review: Rapid Evidence Synthesis

Methods: Literature published between 2000-2015 was reviewed using the principles of rapid evidence assessment. Six electronic databases: CINAHL, Medline, EMBASE, Psych Info, the Cochrane Library and Joanna Briggs Library.

Results: Twenty-nine empirical studies meeting the eligibility criteria were independently assessed by two authors using appropriate Critical Appraisal Skills Programme Checklists. IPV screening in EDs is usually performed using electronic, face to face or pen and paper based instruments. Routine or universal screening results in higher identification rates of IPV. Women who screen positive for IPV in EDs are more likely to experience abuse in subsequent months. Factors that facilitate PV screening can be classified as health care professionals related factors, organisational factors and patient related factors.

Conclusion: EDs provide a unique opportunity for health care professionals to screen patients for IPV. Competence in assessing the needs of the patients appears to be a very significant factor that may affect rates of IPV disclosure.

Relevance to Clinical Practice: Knowledge of appropriate domestic violence screening methods and factors affecting IPV screening in emergency can help nurses and other health care professionals provide patient centred and effective care to victims of abuse attending ED.

Keywords:
Intimate partner violence, screening, emergency department, rapid evidence assessment, review, nursing, ED
Summary statement

What this paper adds:

- The available evidence suggests considerable variations in the types of IPV screening, methodological issues and factors influencing IPV disclosure in ED.
- There is some evidence that providing appropriate training and facilities to health care professionals, building trust and rapport with victims, and improving the institutional environment to overcome barriers to IPV screening and management in ED.
- Attention needs to be paid to improve staff training and numbers in the ED.
- Further research is needed to explore perspectives of patients and staff on IPV screening in the ED.
INTIMATE PARTNER VIOLENCE

Intimate partner violence (IPV) is now clearly recognised as a global health and societal issue (World Health Organisation 2015). It refers to the violence or a pattern of abusive behaviours between intimate partners (Ali et al. 2016) resulting in, physical, sexual or psychological harm. IPV encompasses physical aggression, sexual coercion, psychological abuse and controlling behaviours (World Health Organisation 2015). Available evidence suggests that one in three women, worldwide, experience physical or sexual IPV (Devries et al. 2013). While studies demonstrating the prevalence of IPV in men are limited, evidence from the UK suggests that 17% of men (between the ages of 16 and 59) experience IPV (Office for National Statistics 2015). IPV intersects cultures, religions, ethnicities, social class and geographical locations. Over the past few decades, various terms have been used to refer to the phenomenon of IPV and these include domestic abuse, domestic violence, domestic violence and abuse, wife abuse, spousal abuse, wife battering, and wife beating etc. However, IPV is the most current term used to refer to violence between intimate partners who may or may not be married. Use of this term also recognises that IPV can happen in heterosexual as well as homosexual relationship and that women can also be perpetrators of IPV (Desmarias 2012; Fehringer & Hindin 2014). While it is established that women can perpetrate IPV against their male partners, the number of women experiencing IPV and/or sustaining injuries is much higher (World Health Organisation 2015, Howart et al. 2013). Although the focus of this paper is not only women, most of the literature available so far is skewed towards the presentation of issues of women victims of IPV and this is reflected in this paper too.

IPV can have long-term and serious negative health impacts on the victim who, in most cases, is a woman (Olive 2007). Nurses working in any health care setting and especially those working in emergency and urgent care settings can play a crucial role in identification, prevention and management of IPV (NICE 2014). Routine screening of IPV in the Emergency Departments (ED) can be very useful, as ED is a common place that IPV victims/ survivors’ access for the treatment of their injuries and symptoms (Houry et al. 2008) due to its 24 hour availability. While public health definition of screening
refers to a test, examination or a procedure that can be used in asymptomatic individuals or population to identify any given disease or condition, the definition of IPV screening is somewhat different, as the victims may not be ‘asymptomatic’ when presenting to health care setting such as ED. In this context, the definition of IPV routine screening varies widely and may range from screening of only suspected victims of IPV to screening every patient attending ED (Waalen et al. 2000). IPV screening is very important as it can help identify IPV victims/ survivors, reduce abuse, and improve clinical and social outcomes for the victim/ survivors (Bair-Merritt et al. 2014, Taft et al. 2013). It may also help prevent long term fatal consequences associated with IPV such as homicide or suicide etc. Although health care professionals and researcher are concerned about unintended consequences or harm to the victim/ survivor due to IPV screening in health care setting, evidence supporting such harm is scarce (Houry et al. 2008, MacMillan et al. 2006). Considering this, IPV screening in ED remains an opportunity for health care professionals to identify IPV. Evidence suggests that at least 54% of all women presenting to the ED have experienced IPV at some point in their life (Abbott et al. 1995), however, only 5% of such victims/survivors are identified by health care professionals (McGarry & Nairn, 2015) and a majority remains unnoticed (Corbally, 2001; McGarry & Nairn, 2015). There are many barriers to adequate screening, detection and support of IPV victims/ survivors in the ED (Hugl-Wajek et al. 2012, p. 860). Overcrowding, lack of time, lack of confidence and lack of preparedness of the health care professionals (Hugl-Wajek et al. 2012, Gutmanis et al. 2007, Gerbert et al. 2002) are some examples of such barriers.

Much emphasis has been placed on the need for universal screening of IPV victims in healthcare settings, including ED, although, research exploring optimal IPV screening methods and barriers to effective IPV screening in EDs is relatively limited. In addition, there is a need to review and consolidate available evidence related to IPV screening and barriers to screening in ED to identify strengths and limitations of the existing studies as well as gaps in the literature. Findings from such a review will help in the development of better IPV screening methods, strategies to overcome barriers to IPV screening and identification of future research needs. Considering this, the current paper aims to present a rapid
review of evidence conducted to explore IPV screening methods used in EDs and what impacts on IPV screening in EDs. The specific objectives of the review were:

- To identify effective IPV screening methods used in EDs to identify IPV
- To explore factors affecting IPV screening in EDs.

METHODS

A rapid review of the literature following the principles of rapid evidence assessment (REA) was undertaken during March – July 2015. REA provides a timely, valid and balanced assessment of available empirical evidence related to a particular policy or practice issue (Department for International Development, UK 2015). REA is a rigorous and explicit method that avails evidence required for policy recommendations in a short timescale. However, the process requires some concessions to the breadth and depth of the review of available evidence using a systematic review process (Ganann et al. 2010, Watt et al. 2008). The process is characterised by developing a focused research question, a less developed search strategy, literature searching, a simpler data extraction and quality appraisal of the identified literature (Watt et al. 2008).

A literature search using the search engines MEDLINE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsychInfo, Excerpta Medica Database (EMBASE), the Cochrane Library and the Joanna Briggs Library was performed. Keywords used in the search included domestic violence, intimate partner violence, spousal violence and wife abuse. These terms were used in addition to screening, ED, Accident and Emergency, A & D, screening AND Emergency, and barriers. A search was also conducted using Google and Google Scholar to identify studies not published in indexed journals. In addition, the reference list of each article was scrutinized to identify unpublished studies and grey literature.
Inclusion and Exclusion

In this review, any empirical study that explored screening interventions used to identify IPV victims/survivors in ED was considered for inclusion. Studies that explored barriers to IPV screening in the ED were also included. Included studies had to be, based on empirical data, written in English, and published in a peer reviewed journal between 2000-2015. Studies that explored IPV screening interventions or barriers to IPV screening in various settings with ED as one setting were also included. Studies that explored IPV screening interventions or barriers to IPV screening in settings other than ED were excluded. In addition, papers such as reports, case series, scholarly or theoretical papers, editorials, commentaries were excluded. Table one summarises the inclusion criteria used to include studies in the present review.

Study Selection

Two independent reviewers (IA and PA) assessed each potential article considering inclusion criteria. In the case of disagreement, both reviewers read the paper and discussed until consensus was reached. Figure 1 provides a flow chart for the literature search. The initial search identified 820 potentially relevant articles. A scan of titles helped in narrowing down this to 250 articles. A further review of the titles and abstracts of identified papers resulted in the selection of 57 potential papers. The full text was retrieved for all 57 articles and after a careful review of each article, 24 articles were included in the review.

Quality Review and Data Extraction

To review the quality of studies, the critical appraisal tools of the Critical Appraisal Skills Programme (CASP) Oxford were used (Critical Appraisal Skills Programme, 2013). The tool was not used to eliminate selected studies from the review, but to ensure that studies were examined using uniform criteria. A data extraction template was constructed and used to record relevant information such as purpose, research design, sampling method, sample characteristics, data collection method, method
of data analysis, the results of the study, limitations and comments. The findings of the review are presented under appropriate headings in the following section.

**FINDINGS**

**Study Characteristics**

Table 2 and 3 present characteristics of the studies included in the review. The selected studies were published in the last 15 years (between 2000-2015). Studies originated from USA, Australia, United Kingdom (UK), New Zealand, Netherlands, Canada and Iceland. Of 24 selected articles, 12 studies were related to IPV screening interventions and remaining 12 studies explored barriers to IPV screening. In most studies, either there was no comparison group, or the intervention was compared with routine practice (Hugl-Wajek et al. 2012, Koziol-McLain et al. 2010, Svavarsdottir, 2010, MacMillan et al. 2009, Houry et al. 2008, Trautman et al. 2007, Rhodes et al. 2006, Houry et al. 2004, Fanslow et al. 1999, 1998, Roberts et al. 1997, Olson et al. 1996). Some studies compared more than one intervention. For instance, Hollander et al. (2004) compared the effect of written versus verbal consent on the IPV disclosure. Similarly, Bari-Merritt et al. (2006) compared effectiveness of audiotape versus written questionnaire on the rate of IPV disclosure and MacMillan et al. (2006) compared computer based self-completed questionnaire, verbal and written self-completed questionnaire.

**Study Design:**


**Study Population and Sampling:**

All studies included in the review except two (Houry et al. 2008, Hollander et al. 2001) involved adult or adolescent women. Women who were too ill to participate, or presented with communication or language difficulties, mental instability, or those with partners (therefore, may not be able to answer IPV related questions) were excluded from the studies. Only studies included men as participants (Houry et al. 2008, Hollander et al. 2001). Other studies focused on perspective of health care professionals such as doctors, nurses, social workers (Zijlstra et al 2015, DeBoer, et al., 2013, Ritchie et al. 2009, Gutmanis et al. 2007, Dowd et al. 2002, Elliott et al. 2002).

Depending on the study design, the studies used random sampling, convenience sampling followed by random allocation to various intervention groups and convenience sampling method. The justification for sample size was provided for only a few studies (MacMillan et al. 2009, Trautman et al. 2007, MacMillan et al. 2006, Hollander et al. 2001, Morrison et al. 2000), though, sample size appeared to be appropriate in all included studies. The majority of the studies described characteristics of the participants in relation to age, gender, ethnicity, and socioeconomic status in ample detail to help the reader understand the study.

**Data Collection**

Data were collected through various methods depending on the research design and purpose of the study. The data were often collected by trained research assistants (RAs) or researchers (MacMillan et al. 2009, Houry et al. 2008, Ritchie et al. 2009, MacMillan et al. 2006, Bair-Merritt et al. 2006, Rhodes et al. 2006, Houry et al. 2004, Hollander et al. 2001, Morrison et al. 2000) health care professionals such as doctors, nurses, midwives (Zijlstra et al. 2015, Ramsden & Bonner 2002), a social worker, or an on-site DV advocate (Hugl-Wajek et al. 2012). With regards to IPV screening interventions, information was

RESULTS OF IPV SCREENING INTERVENTIONS STUDIES

Findings suggest that routine or universal screening of IPV results in higher identification rates of IPV (Morrison et al. 2000). Women who screen positive for IPV are more likely to experience IPV in the next few months; therefore, IPV screening in the ED can contribute effectively in establishment of preventive interventions to reduce IPV experiences of the those screened (Houry et al. 2004). However, the findings also highlighted discrepancies in practice, with some practitioners screening all patients and other screening selectively (Yonaka, et al. 2007). Nurses and other health care professionals routinely screen patients with obvious signs of injury but may be selective in screening others with no obvious sign of abuse (Yonaka et al. 2007).

The effectiveness of various screening methods was explored in some studies. Examples of such methods include computer-based screening, pen and paper screening, audiotape questionnaires, and verbal screening by a health care professional (Svavarsdottir 2010, Hugl-Wajek 2009, Houry et al. 2008, Bair- Trautman et al. 2007, Merritt et al. 2006, Rhodes et al. 2006, McMillan et al. 2006). There were mixed results. Women tend to prefer self-completed questionnaires to face to face questioning (MacMillan
et al. 2006). Computer based screening method was identified as a low cost but effective when compared to verbal inquiries by health care professionals (Trautman et al. 2007, Rhodes et al. 2006). Women were more likely to disclose IPV when screened using computer based questionnaires (Trautman et al. 2007, Rhodes et al. 2006) as the disclosure rate for computer based screening was reported to be higher (14%) compared with verbal screening (8%) (Rhodes et al. 2006). No significant difference in women’s acceptability of audiotape and written questionnaire was reported, though the use of audiotape questionnaire resulted in higher disclosure rates (Bair-Merritt et al. 2006). Another study identified that verbal screening was least preferred by participant and written IPV screening yielded a lower prevalence of IPV (MacMillan et al. 2006). On the other hand, one study identified the use of a dedicated and trained DV advisor as an effective method in increasing IPV detection rates (Hugl-Wajek et al. 2012).

**FACTORS FACILITATING IPV SCREENING OR IPV DISCLOSURE IN ED**

Several studies have explored various factors that have an impact on IPV screening in the ED (Zijlstra et al. 2015, De Boer, et al., 2013, Ritchie et al. 2009, Gutmanis et al. 2007, Yonaka et al. 2007, Hurley et al. 2005, Kramer et al. 2004, Sethi et al. 2004, Dowd et al. 2002, Elliott et al. 2002, Ramsden & Bonner 2002, Yam, 2000). Universal screening led to higher rates of IPV identification. IPV screening rates vary by the severity of the patient’s condition, type of presenting complaint, and presentation time. Patients presenting with less severe problems, or a combination of trauma and medical problems were more likely to be screened for IPV than psychiatric patients. There were various factors that affected health care professional’s abilities to screen for IPV in the ED. These factors can be classified into health care professional related factors, organisational factors and patient related factors as presented below.

**Health Care Professional Related Factors**

These refer to the factors affecting ability of the health care professionals screen their patients for IPV. Example of these include health care professionals’ knowledge, awareness and attitudes towards IPV (Yonaka, et al., 2007, Gutmanis et al. 2007, Ramsden & Bonner 2002), lack of attentiveness and lack of empathy (Kramer et al. 2004, Dowd et al. 2002, Yam 2000). These factors may also impact on
the respondent's ability to disclose IPV, as the health care professional may not be able to provide appropriate opportunities for the patient. Other factors include lack of training (Yonaka, et al., 2007, Ritchie et al. 2009), health care professional’s personal comfort and confidence in asking IPV related questions (Yonaka, et al., 2007, Ritchie et al. 2009), personal history of abuse (Yonaka, et al. 2007) perception of role (Ritchie et al. 2009) and forgetting (Ritchie et al. 2009). Additional barriers for senior health care professionals working in the ED may include additional work roles and responsibilities affecting their ability to develop rapport and trust with the patient resulting in their inability to ask IPV related questions.

There are some factors that enable health care professionals to screen IPV more effectively and these include the ability to ask direct questions (Kramer et al. 2004), spending enough time with the patient and not appearing rushed (Kramer et al. 2004). In addition, ensuring confidentiality, privacy, respecting the patient’s autonomy and their decisions also facilitate IPV disclosure by the victim to the health care professional (Kramer et al. 2004). Health care professionals may need training and support to develop such skills (Ritchie et al. 2009). The gender of a professional may also influence IPV disclosure, as IPV victim felt comfortable in disclosing their IPV experience to female health care professionals (Kramer et al. 2004; Zijlstra et al. 2015).

Organisational/ Institutional Factors

These refer to factors related to organisational structure and provision that may impact on IPV screening. Lack of privacy (Ritchie et al. 2009, Ramsden & Bonner 2002, Ellis 1999), lack of after-hours social services (Ramsden & Bonner 2002) and lack of time (Zijlstra et al. 2015, Yonaka et al. 2007, DeBoer et al. 2013) and work pressure were identified as organisational factors affecting IPV screening and IPV disclosure. Availability of resources and the provision of an appropriate environment to facilitate IPV screening may help in improving IPV detection rates (DeBoer et al. 2013, Ritchie et al. 2009). Providing healthcare professionals with more prompts or reminders by means of cue cards can help in improving screening rates (Ritchie et al. 2009). In addition, ensuring the involvement of health care
professionals in the development and/or review of policies and protocols about identification and management of IPV (Zijlstra et al. 2015) may be useful. Such initiative will not only improve health care professionals’ willingness, knowledge and abilities to screen IPV in EDs, but will also inculcate of a sense of ownership of policies and procedures. Clear referral pathways and close working relationship between health care professional not only in the ED but also within the wider health care system is essential in facilitating appropriate IPV screening in the ED.

**Patient related Factors**

These refer to factors that impact victims’ ability to disclose IPV to their nurse or other health care professional when visiting the ED. Lack of readiness to share or address the problem, lack of confidence, feeling of embarrassment, fear of harm by the abuser or fear of losing children were identified as some of the barriers that may affect a victims’ willingness to disclose abuse and thus affect IPV screening in the ED (Kramer et al. 2004). Language barriers, where communication between health care professionals and patients is not concordant, also impacts the victim’s ability to disclose their IPV experiences (Yonaka, et al. 2007). In addition, the presence of other family members with the patient was identified as another barrier affecting IPV disclosure by the victim (Zijlstra et al. 2015). Provision of appropriate environment of the patients, inculcating a sense of trust and respect, respecting privacy, autonomy and patients’ decisions may help in improving disclosure by Victims.

**Discussion**

in the ED have attracted researcher attention in the past decades. The findings of the review suggest that issues concerning IPV screening in ED and challenges associated with this issue are global; however, most research exploring the issue is conducted in western and developed countries. It is important to explore the variation in the practices related to IPV screening across institutions, systems and countries in an attempt to develop practical and useful guidelines and principles applicable to wider health care settings in different contexts. The findings of the present review also highlight that most of the studies conducted on this topic are quantitative. However, some qualitative studies are conducted to explore factors affecting IPV screening in the ED ([Zijlstra et al. 2015, Ritchie et al. 2009, Dowd et al. 2002, Yam, 2000]. The review also highlighted the strengths of the available studies. For instance, sample size and methodology used in various studies appeared generally appropriate and robust. Findings suggest that patients who are IPV victims preferred responding to self-reported questionnaire (Trautman et al. 2007, Rhodes et al. 2006), however, we know that self-report questionnaire can be a source of recall bias. While quantitative exploration is important, it fails to provide contextual information about the situation and experiences, therefore, mixed method studies can be a good option and may help develop appropriate instruments for IPV screening.

Consistent with previous research (Larkin et al. 1999, Olson et al. 1996), the findings of the review suggest that routine or universal screening of IPV results in higher rates of identification of IPV cases (Morrison et al. 2000). Findings highlight that women who screen positive for IPV in ED are more likely to experience IPV in the next few months and therefore, IPV screening in the ED can help in the development of effective preventive strategies to protect the women from further IPV victimization (Houry et al. 2004). There are various screening methods that can be used by health care professionals. These may include computer based screening, written or pen and paper screening, audiotape questionnaires, and verbal screening by a health care professional (Svavarsdottir 2010, Hugl-Wajek 2009, Houry et al. 2008, Trautman et al. 2007, Bair-Merritt et al. 2006, Rhodes et al. 2006, McMillan et al. 2006). Evidence suggests that these methods may prove equally effective in different places and settings and that there
is no single best IPV screening method (Thackeray et al. 2007; Hussain et al. 2015). While there are 33
IPV screening questionnaires that can be used for IPV screening, only a small number of studies have
been conducted to validate these questionnaires and that the sensitivity and specificity of these
questionnaires are highly variable (Rabin, et al. 2009). It is important to consider that the effectiveness
of any particular screening method may depend on the context where it was administered, comfort and
confidence of the person using the method and state, willingness, comfort and confidence of the victim.

Consistent with available evidence, the findings of the study identify computer based screening
method as effective and efficient (Renker, 2008, Trautman et al. 2007, Rhodes et al. 2006). This may be
because the patient or IPV victim can answer various questions without being interrupted or without the
feeling of being judged and embarrassed. Such methods convey a sense of confidentiality that may help
the patients respond to question better. On the other hand, verbal screening methods can be effective
when the practitioner is able to develop a trusting relationship with the patient. In such cases a rapport
and trust between the practitioner and the victim may help the victim disclose information more
comfortably. The findings of the review suggest that most of these screening instruments are developed
and tested in western countries and may not be as effective in screening IPV in other countries. However,
unless further studies are conducted in other parts of the world, especially in non developed, eastern and
Asian countries to test the usefulness, relevance and applicability of available tools, this is just an
assumption. Definitions and perspective about IPV differ in different cultures and there is a need to
develop culturally specific tools for different populations and context.

The findings suggest many factors, including health care professionals, patients and institutional
or organisational factors that may help or hinder IPV screening in the ED. Health care professionals’
related factors included knowledge, awareness and attitudes towards IPV (Gutmanis et al. 2007,
Ramsden & Bonner 2002), lack of attentiveness, lack of empathy (Kramer et al. 2004, Dowd et al. 2002,
Yam 2000), and lack of time (Yonaka, et al. 2007, Zilstra, 2015). Therefore, it is important to provide
health care professionals with appropriate training and services to help them develop confidence and
competence to ask sensitive questions from their patients (Ritchie et al. 2009, Kramer et al. 2004). Findings identified gender as a factor affecting IPV screening. It may be that some patients may feel more comfortable in disclosing their IPV experiences to a health care professional of their own gender. This also suggests that appropriate training and preparation of health care professionals may be needed to help such them develop confidence and competence in asking relevant questions and thus may help in improving IPV screening. Further robust and systematic research will be useful to explore the impact of gender and gender congruence on disclosure of IPV or other forms of domestic violence especially by male victims of violence.

The findings of the review also highlighted various institutional and organisational factors such as lack of privacy (Ritchie et al. 2009, Ramsden & Bonner 2002) lack of after-hours social services (Ramsden & Bonner, 2002) and lack of time (Yonaka, et al. 2007, Zilstra, 2015) and work pressure as factors affecting IPV screening or disclosure. This suggests that there is a need to deal with such issues to improve IPV detection rates in ED. We already know that ED is very busy setting and factors such as high turnover of staff, stressful environment, and difficulties associated with provision of and sustaining of training opportunities affect IPV screening and subsequent management of such cases (O’Doherty et al. 2014). Ensuring appropriate staffing in the ED can help provide appropriate time to facilitate IPV screening. In addition, development of appropriate policies and pathways delineating identification, management, and referral procedure may help health care professionals understand their responsibility better and may help improve IPV screening.

The review also identified patient related factors that may affect IPV disclosure (Kramer et al. 2004). Provision of appropriate environment of the patients, inculcating a sense of trust and respect and respecting privacy, autonomy and decisions of the patient / IPV victim may help in improving IPV screening in the ED or IPV disclosure by patients. It is important to note that the findings related to patient related factors, in this review, are mainly from the perspective of health care professionals. Further research exploring the perspective of victims, or about factors affecting their ability to disclose IPV may
be useful. At the same time, it is important to increase health care professionals’ awareness about the perspectives and expectations of victims/ survivors about IPV disclosure and the role of health care professionals. Available evidence suggests that victims/ survivors of IPV expect their nurses and health care professionals to ask them about their experiences (Pratt-Eriksson et al. 2014). An awareness of patient expectations may help nurses and other health care professionals develop the confidence to screen IPV.

Current review provides important insight about appropriate IPV screening methods used in the ED. The review also highlighted factors affecting IPV screening in the ED. While screening can help identify IPV victims, the rate of identification remains lower when compared with IPV prevalence (O’Doherthy et al. 2014). Further research is needed to explore if IPV screening increases the rate of referral to other agencies and organisations. More multicentre research trials are needed to explore the effectiveness of universal IPV screening in EDs and other health care settings.

Limitations

In line with REA methodology limitations were introduced in the review, which is appropriate as promptly aggregated evidence summaries inform the development of timely intervention for policy makers and service providers. Keeping REA methodology in mind and the timescale of rapid review print and grey literature was not searched, contacts to authors were not made, and published material was restricted to English language, therefore, there is a possibility of missing relevant published and unpublished studies. These limitations might have introduced bias into this review. However, given a wide range of results from quality studies on IPV screening, it would be unlikely that significant findings are missed and additional information would change hugely the conclusion of the review.

Relevance to Clinical Practice

The review highlights various important factors (e.g. Privacy, confidentiality and trust) that appear to be important for the IPV victims attending ED and receiving IPV screening and referral services. Health care
professionals working in the ED and providing such services need to be mindful of these factors and should ensure that they provide appropriate service to the patients/ IPV victims. Provision of such services requires an appropriate number of health care professionals, social workers of DV advocates to be present in EDs, therefore, the findings have implications for health facility, and ED managers and policy makers to ensure the appropriate number of staff are appointed in ED to ensure provision of appropriate services. In addition, appropriate education and training opportunities to develop nurses and other health care professionals' knowledge, confidence and competence about IPV screening in the ED and other health care settings.

Conclusion

Health care professionals working in the ED have a unique position that can help them identify many patients who are experiencing IPV and/or are at risk of IPV from their current and former partners. This review has added to the understanding of various IPV screening interventions in the ED and factors affecting IPV screening in the ED. Knowledge of such factors may help in improving available services for the IPV victims attending ED. The systematic review of the literature presented highlights these factors and suggest that there is scope to explore the effectiveness of IPV screening services in the ED in the future. There is a need to explore the factors affecting IPV screening in ED from the perspective of patients and health care providers. Qualitative studies need to be conducted to explore patients and health care professionals' subjective experiences in relation to IPV screening in the ED.
References


Table 1: Criteria for inclusion of primary studies in the review

<table>
<thead>
<tr>
<th>Screening interventions</th>
<th>Barriers to screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conducted in the ED setting</td>
<td>Conducted in the ED setting</td>
</tr>
<tr>
<td>Participants of either gender (male/female) presenting to the ED</td>
<td>Participants of either gender (male/female) presenting to the ED</td>
</tr>
<tr>
<td>Health care professionals working in the ED</td>
<td>Health care professionals working in the ED</td>
</tr>
<tr>
<td>Quantitative (experimental and non-experimental studies)</td>
<td>Quantitative or Qualitative studies</td>
</tr>
</tbody>
</table>
Figure 1: Literature Search Flow chart

820 Articles from initial database search

Title Scan = 250

Title/Abstract Scan = 57

24 Included
Studies related to screening interventions: 12
Studies related to barriers to screening IPV: 12

26 excluded
Not relevant (did not fulfill inclusion criteria)

1 excluded
Not enough detail
Table 2: Characteristics included studies related to IPV screening

<table>
<thead>
<tr>
<th>Author &amp; year</th>
<th>Country</th>
<th>Setting</th>
<th>Inclusion Criteria</th>
<th>Screening method</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morrison et al. (2000)</td>
<td>Canada</td>
<td>ED</td>
<td>Women attending ED and (screening group only) those not needing immediate treatment or those having conditions preventing participation</td>
<td>Structured interview, including asking five direct questions about current of past DV</td>
<td>Usual assessment</td>
</tr>
<tr>
<td>Hollander et al. (2001)</td>
<td>USA</td>
<td>ED</td>
<td>All patients attending ED, medically stable for completing the screening, (excluded if &gt;18 or &lt; 65 years of age, or unable to complete the screening process due to language barrier or medical instability)</td>
<td>On even days patients were asked to provide a written informed consent, On the odd day, following verbal consent, patients were asked to respond to a standard questionnaire</td>
<td>Written vs verbal consent</td>
</tr>
<tr>
<td>Houry et al. (2004)</td>
<td>USA</td>
<td>ED</td>
<td>Women aged ≥ 18 attending ED, excluded if presented to the ED for the sexual assault evidentiary exam, had a language barrier, were critically ill, or had altered mental status</td>
<td>Demographic questions and six questions about DV including partner violence screen (PVS), followed up after 4 months and assessed using the modified 18 item CTS scale, also asked if the patient has experienced any injuries since the initial ED visit and if sought medical care for any illness or injury related to DV</td>
<td>Usual assessment</td>
</tr>
<tr>
<td>Bair- Merritt (2006)</td>
<td>USA</td>
<td>Paediatric ED</td>
<td>English or Spanish speaking women attending paediatric ED, not accompanied by another adult, the child was not undergoing acute resuscitation, aged ≥ 18 or were an emancipated minor</td>
<td>Audiotape group: listened to audio question and circled yes and no answer on the sheet: written questionnaire group: completed a written survey, following completion of ten safety question by either method the RA verbally administered ten Likert scale questions</td>
<td>Audiotape questionnaire vs written questionnaire</td>
</tr>
<tr>
<td>Author &amp; year</td>
<td>Country</td>
<td>Setting</td>
<td>Inclusion Criteria</td>
<td>Screening method</td>
<td>Comparison</td>
</tr>
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</tr>
<tr>
<td>MacMillan et al. (2006)</td>
<td>Canada</td>
<td>ED</td>
<td>Women between 18-64 years of age. Able to speak and read English. Not too ill to participate. Able to provide informed consent</td>
<td>Computer Based Screening: completed screening instrument (PVS and WAST, randomly ordered) using a tablet computer. Written self-completed method: complete paper version of screening method (PVS and WAST randomly ordered), face to face method with verbal questioning of health care provider: verbally screened by their health care provider with one of the 2 screening instruments, randomly determined</td>
<td>Computer-based self-completed questionnaire, face to face interview, written self-completed questionnaire</td>
</tr>
<tr>
<td>Rhodes, et al. (2006)</td>
<td>USA</td>
<td>Urban &amp; Suburban ED</td>
<td>Women age 18-65 years attending ED with non-urgent problem.</td>
<td>Self-administer computer based-health risk assessment, with prompt for the health care provider or to usual care</td>
<td>Usual care</td>
</tr>
<tr>
<td>Trautman et al. (2007)</td>
<td>USA</td>
<td>ED</td>
<td>Women aged&gt;18 attending ED during enrolled period. Excluded if acute or critically ill, illiterate, mental status impeded, disoriented, intoxicated, would not separate from their partner or already enrolled from the previous study period</td>
<td>Self-reported computer base health survey in a private area at study site. Medical records of all subjects were reviewed</td>
<td>Usual care</td>
</tr>
<tr>
<td>Houry et al. (2008)</td>
<td>USA</td>
<td>ED</td>
<td>All patients aged 18-55 years attending ED. Able to speak and read English. And capable of standing for 20 minutes</td>
<td>Patients who screened positive on a computer kiosk-questionnaire for IPV in the past year were provided with resource and information and invited for follow-up interview at 1 week and three months. Number of violence related 911 calls 6 months before and 6 months after the initial ED visited for selected participant were reviewed</td>
<td>Usual care</td>
</tr>
<tr>
<td>Author &amp; year</td>
<td>Country</td>
<td>Setting</td>
<td>Inclusion Criteria</td>
<td>Screening method</td>
<td>Comparison</td>
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</tr>
<tr>
<td>Macmillan et al. (2009)</td>
<td>Canada</td>
<td>12 Primary care sites (family practice, CHC), acute care sites (ED, Obs &amp; Gynae clinic)</td>
<td>English-speaking female patient aged 18 to 64 years, could be seen individually and were well enough to participate</td>
<td>Women in the screened group self-completed WAST, information about positively screened woman was given to a clinician before the visit, subsequent referral/discussion were at the discretion of the clinician, non-screened group self-completed WAST after their visit to a clinician</td>
<td>IPV screening vs no screening</td>
</tr>
<tr>
<td>Svavarsdottir, et al. (2010)</td>
<td>Iceland</td>
<td>ED/HRPCC</td>
<td>Women aged 18-68 years attending ED or HRPCC, able to read and write Icelandic or English, excluded if under the influence of drugs or alcohol</td>
<td>Completion of self-reported questionnaire (WAST) followed by participation in an interview</td>
<td>None/ usual care</td>
</tr>
<tr>
<td>Koziol-McLain et al. (2010)</td>
<td>New Zealand</td>
<td>ED</td>
<td>English speaking women aged &gt; 16 attending ED during selected shifts, excluded if presented with organic or functional impairment based on clinical assessment, requiring emergency treatment, couldn’t speak English, or entered into study during a previous visit</td>
<td>Screened using a 3 item IPV screen, statement about the unacceptability of violence, risk assessment and referral</td>
<td>Usual care</td>
</tr>
<tr>
<td>Hugl-Wajek, et al. (2012)</td>
<td>USA</td>
<td>ED</td>
<td>Women aged between &gt; 18 -60 attending ED, excluded if too ill or too injured to participate in screening interview or declined screening</td>
<td>Incidence an prevalence data was collected by a single trained DV advocate using a standard screening form from the Hospital Advocacy programme</td>
<td>Usual care</td>
</tr>
</tbody>
</table>
Table 3: characteristics of included studies in the review: Barriers to IPV screening in ED

<table>
<thead>
<tr>
<th>Author (year)</th>
<th>Country</th>
<th>Setting</th>
<th>Design</th>
<th>Sample Eligibility</th>
<th>Sampling method</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yam, (2000)</td>
<td>USA</td>
<td>-</td>
<td>Phenomenology</td>
<td>Women who had sought help for abuse related injuries at a hospital emergency department within the past 12 months</td>
<td>Purposive</td>
<td>Five participants</td>
</tr>
<tr>
<td>Dowd et al. (2002)</td>
<td>USA</td>
<td>ED</td>
<td>Qualitative</td>
<td>Full or part time physicians or nurses working in the ED, Any women (18-65 yrs. of age) who was the caregiver of at least one child, able to speak English or Spanish,</td>
<td>Convenience</td>
<td>59 Mothers, 21 nurses, 17 Physicians</td>
</tr>
<tr>
<td>Elliott et al. (2002)</td>
<td>USA</td>
<td>-</td>
<td>Cross sectional postal survey</td>
<td>General internist, family practitioners, obstetricians-gynaecologist, emergency medicine physician</td>
<td>National systematic sample</td>
<td>2400 contacted, 1103 participated</td>
</tr>
<tr>
<td>Ramsden &amp; Bonner (2002)</td>
<td>Australia</td>
<td>ED</td>
<td>Screening Pilot project</td>
<td>All women ≥ 16 years presenting to the ED</td>
<td>Convenience</td>
<td>245 women screened</td>
</tr>
<tr>
<td>Kramer et al. (2004)</td>
<td>USA</td>
<td>ED</td>
<td>Survey</td>
<td>Adult women attending ED and primary care clinics during specific study period</td>
<td>Convenience</td>
<td>1268 women</td>
</tr>
<tr>
<td>Sethi et al. (2004)</td>
<td>UK</td>
<td>ED</td>
<td>Survey</td>
<td>Women aged 18-80 years attending ED, who are not too ill to participate</td>
<td>Convenience</td>
<td>200 women</td>
</tr>
<tr>
<td>Hurley et al. (2005)</td>
<td>Canada</td>
<td>ED</td>
<td>Survey</td>
<td>non-critically ill patients, aged 16–95 years who presented to the ED during specified data collection time frames</td>
<td>Convenience</td>
<td>514</td>
</tr>
<tr>
<td>Gutmanis et al. (2007)</td>
<td>Canada</td>
<td>Postal survey</td>
<td>General practitioners and specialist employed in family practice, emergency medicine, obstetrics and gynaecology and public health, Nurses employed in family practice/ physician offices, emergency care, maternal, new born, and public health</td>
<td>Random</td>
<td>1000 nurses, 1000 physicians</td>
<td></td>
</tr>
<tr>
<td>Yonaka et al. (2007)</td>
<td>USA</td>
<td>ED</td>
<td>Cross sectional survey</td>
<td>Nurses working in the ED</td>
<td>Convenience</td>
<td>33 nurses</td>
</tr>
<tr>
<td>Ritchie et al. (2009)</td>
<td>New Zealand</td>
<td>ED</td>
<td>Qualitative descriptive design/ Evaluation research</td>
<td>All registered nurses and social worker working in the ED</td>
<td>Convenience</td>
<td>11 nurses</td>
</tr>
<tr>
<td>DeBoer, et al (2013)</td>
<td>USA</td>
<td>ED</td>
<td>Cross-sectional survey study</td>
<td>Registered nurses working in the ED, critical care units, labour room, general medical/telemetry floors, the inpatient psychiatric unit, the case management and the nursing resource team.</td>
<td>Convenience</td>
<td>156 nurses</td>
</tr>
<tr>
<td>Zijlstra et al (2015)</td>
<td>Netherlands</td>
<td>ED</td>
<td>Qualitative</td>
<td>ED staff, including physician, physician assistant, nurses, receptionists, and ED mangers</td>
<td>Convenience</td>
<td>18 (3 physician, 4 physician assistants, 2 receptionists, 7 nurses, 2 ED managers)</td>
</tr>
</tbody>
</table>