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Review Article

From Blue to Green: Intimate Partner Violence in a Trauma Surgeon`s View - A Review of the Current Literature

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Abstract: Over the past 40 years, intimate partner violence (IPV) has evolved from an emerging social problem to a socially unacceptable crime. IPV is also a major public health issue, with serious social, economic and health consequences. Although men do experience intimate partner violence, it is considerably more prevalent among women. Despite the high prevalence of intimate partner violence in the Emergency Department (ED) and the serious associated health consequences, screening and detection of victims remain low in the ED. According to the literature, victims of IPV are mainly women and children. The prevalence of experiencing physical violence at least once during lifespan in Austria is more than 50% for both, men and women. According to the literature, 10% of abused women surveyed were pregnant at the time of abuse, and up to 5% had miscarried because of abuse. Pregnant teenagers are at especially high risk for abuse, with injury rates as high as 27% reported from parental as well as partner abuse. Marginalized populations such as women who are foreign born are also more likely to experience IPV than those born in the US. An estimated $5.8 billion is spent annually as a result of medical and mental health costs and loss of productivity associated with IPV. Therefore we conducted the present review article, to sharpen the orthopaedic trauma surgeon's mind for IPV and associated problems. The aim of the article is to handle the five main questions related to IPV: (1) definition and forms of IPV, (2) detect possible IPV cases in your clinics, (3) factors influencing cases of IPV, (4) diagnosis in IPV cases, (5) prevention and outlook for IPV.
Keywords: intimate partner violence, trauma, public health issue, women

INTRODUCTION

Over the past 40 years, intimate partner violence (IPV) has evolved from an emerging social problem to a socially unacceptable crime [1]. IPV is also a major public health issue, with serious social, economic and health consequences [2]. It is defined as any act of sex-based violence that results in physical, sexual, or psychological harm or suffering between partners. Although men do experience intimate partner violence, it is considerably more prevalent among women [2-6].

IPV is common in the UK and USA, and around 30% of women and 16% of men have experienced some form of domestic abuse since the age of 16 years [7]. In the U.S. approximately 1.5 million women and 834.000 men are physically or sexually assaulted by an intimate partner [6]. Women are 60% more likely to be murdered and more than twice as likely to be injured by an intimate partner compared with men [4, 6]. It is also a fact that in the US, IPV against women disproportionately affects ethnic minorities [8].

Overall, upwards of 35% of all ER visits by women are the result of domestic violence, whether due to acute injury, problems during pregnancy, or stress-related complaints [9]. Warren-Gash *et al*., reported that the proportion ever-experiencing domestic violence increased with age from 5.8% across all clinics in those aged 16-24 years to 9.2% in those aged over 65 years. Overall, women were 2.5 times more likely to report IPV than men (9.5% compared with 3.8%) [7]. Unfortunately, IPV is infrequently disclosed voluntarily by the patient, and often overlooked by the treating physician [9].

The acute and long-term physical and mental health consequences of IPV are profound [6, 10-14]. Many victims seek health care either at acute injury or as a result of chronic health problems related to the abuse [6]. Among the health care settings, the highest prevalence rates of IPV are in the emergency departments (EDs) [6, 15]. The incidence of acute IPV ranges from 2% to 14%, and cumulative lifetime prevalence of IPV has been reported as high as 54% in the ED setting [6, 16-20]. Despite the high prevalence of IPV in the ED and the serious associated health

consequences, screening and detection of victims remain low in the ED [6].

Therefore we conducted the present review article, to sharpen the orthopaedic trauma surgeon's mind for IPV and associated problems. The aim of the article is to handle the five main questions related to IPV: (1) definition and forms of IPV, (2) detect possible IPV cases in your clinics, (3) factors influencing cases of IPV, (4) diagnosis in IPV cases, (5) prevention and outlook for IPV.

DEFINITION AND FORMS OF IPV

Intimate partner violence (IPV) is defined by the World Health Organization as, "any behaviour within an intimate relationship that causes physical, psychological or sexual harm to those in that relationship" [2, 14]. According to the United Nations, IPV is defined as any act of sex-based violence that results in physical, sexual, or psychological harm or suffering between current spouses, current nonmarital spouses, former marital partners, and former nonmarital partners [6].

In the current literature synonymous terms are used for IPV. Those include intimate partner abuse, domestic violence, intrafamiliar violence and battered woman [2, 7, 21-25]. In the psychological scientific literature many publications are dealing with the different forms or appearances of IPV [26-29]. In our review article we want to focus on the physical or sexual forms of IPV, because they are more relevant for the orthopaedic trauma surgeon.

DETECT POSSIBLE IPV CASES

The medical team in the ER has a key role in treating the injuries by IPV [14, 26]. Hellbernd *et al*. found out that most victims would prefer that the health professionals address causes for their injuries [1]. There is body of evidence that battered women expect their treating physician to initiate a dialogue about abuse, and will respond if approached in an empathetic and non-judgemental fashion [9, 30, 31]. Research supports use of sensitive inquiry about IPV when conditions or situations that can be associated with IPV are present [2]. As reported by Warren-Gash *et al.*, the screening tool comprised an initial standardised question: "Have you ever been emotionally or physically hurt by your partner, ex-partner or family member?" [7].

This is in contrast to other findings, proposing that victims of domestic violence will often try to hide the cause of their injuries [9]. Reasons are various and including ashamed of the situation or feel responsible for being victimized, or feeling fear for their safety or the safety of their children, or protecting the abuser due to his status in the community or economic dependency [9]. Other factors include distrust of the medical system, or alienation from health care providers of different ethnic and socioeconomic backgrounds [9, 32]. A high index of suspicion is needed to recognize IPV in the ER, as it is often not apparent on initial evaluation [9]. Only 25% to 50% of women presenting to an ER after IPV present with an acute injury [9].

According to a study published in JAMA, IPV victims are more likely to seek help from health care professionals than from representatives of organized religion or law enforcement agencies [9, 33]. Additionally, ERs offer a 24/7 service and relative anonymity compared with standard health care providers [9, 34, 35].

As with any trauma patient, the entire body needs to be examined, looking for hidden injuries under clothes, makeup, jewelry, or wigs [9]. Injuries range from cuts, bruises, and black eyes to miscarriage, bony injuries, splenic and liver trauma, partial loss of hearing or vision, and scars from burn or knife wounds [9, 36].

Noncompliance with medical treatment is common, and is often a result of the pattern of control by the batterer [9]. The abusive partner isolates the women from outside contacts including friends, family, and medical care, and limits her access to health care providers [9, 37, 38]. When a women is seen in the ER, she is often accompanied by her partner, who will attempt to remain with her during the entire interview and examination. He frequently answers for her, and she may appear frightened, embaressed, or evasive. These are further warning signs of domestic violence for the clinican [9].

Despite the high prevalence of intimate partner violence in the ED and the serious associated health consequences, screening and detection of victims remain low in the ED [6, 39]. The most cited reasons cited by ED staff and other health professionals about barriers to routine screening include time pressures, lack of provider education about IPV, and fear of offending patients [6, 40-43].

Trautman *et al*., stated in a published paper, that a computer-based approach led to significantly higher IPV screening and detection rates compared to usual care [6]. Receipt of IPV services was also higher than usual care but was not optimal [6]. However, even with the assistance of a computer-based method to improve screening and detection of IPV, addressing the problem remains a significant challenge [6]. In a study by Rhodes et al., that included computer-based screening and detection of IPV, only 48% of the time did ED providers discuss IPV issues with patients who had disclosed an IPV risk through the computer [6, 44].

Healthcare clinicans are often the first and only point of contact for women experiencing IPV [2, 45]. However clinicans often do not inquire about IPV and women are often reluctant to disclose without this direct inquiry [2, 45, 46]. Research has found that only 12-

20% of women report being asked by their doctor about IPV, with barriers to inquiry including clinican uncertainty about how to ask, lack of knowledge and training about IPV, and insufficient time [2, 45-47].
Barriers to disclosure by women include both internal factors (shame, normalization and minimization) and external factors (perception that others cannot help, judgmental attitudes, previous negative responses from health professionals) [2]. Additionaly, women are not always at a point where they feel comfortable to disclose [2, 48, 49]. Given the high impact of IPV on women's health, it is imperative that healthcare clinicans are equipped to identify and respond appropriately to IPV as part of their everyday clinical practice [2].

There has been some speculation and debate over whether this identification should take the form of universal screening (given all patients a standardized set of questions), or more targeted identification strategies [2, 50-52]. Those in favour of universal screening for IPV have argued that this may allow identification in situations where the physician might not otherwise inquire or the women not otherwise disclose, especially where the physician lacks accurate knowledge about IPV [2]. Those not in favour of universal screening argue that more targeted identification strategies encourage greater thought and flexibility from the clinican, are less burdensome on the healthcare system and avoid identification becoming a mere box-checking exercise [2]. The current WHO consensus is that more targeted forms of identification should be used instead of universal screening, given that there is insufficient evidence to justify IPV screening of all women attending healthcare services [2]. However, a low threshold for asking about IPV is recommended, even where no other signs of IPV are evident, or the women appears to be fine [2].

A recent systematic review identified 11 trials (including 13.027 patients in total) assessing the effect of universal, routine IPV screening of women in healthcare settings, without subsequent intervention beyond information giving, safety planning or referral that was offered to women immediately following identification [2,50]. The review found, that screening increased the identification of women who had experienced IPV, although identification was still low compared with estimated prevalence rates (six studies) [2, 6, 44, 53-55]. However, no statistical significant results were found for increased referrals to IPV support services or reduction in IPV [2, 6, 18, 54, 56]. It is important to know, that this review excluded studies where screening was followed by an intensive intervention [2].

When detecting possible IPV cases, a strong limiting factor in current research related to outcome measurements for evaluating IPV programs within clinical settings has to mentioned and discussed in detail [57]. Results of multiple studies associated with this issue are inconclusive and frequently conflicting, resulting in clinical uncertainty and controversy, regarding the merits of IPV identification and assistance programs [57]. For identification studies, the most commonly used outcome categories were IPV disclosure (66.7%) and resource use (66.7%) [57]. The most commonly used outcome categories for the IPV assistance studies include IPV recurrence and severity (64.3%) and health outcomes (50%) [57]. Those facts should high lighten the urgent need for challenges of conducting research in the field of IPV detection and the complexity of selecting, measuring, and interpreting outcomes [57].

FACTORS INFLUENCING CASES OF IPV

According to the literature, 10% of abused women surveyed were pregnant at the time of abuse, and up to 5% had miscarried because of abuse. Pregnant teenagers are at especially high risk for abuse, with injury rates as high as 27% reported from parental as well as partner abuse [9, 38, 58-60]. Estimates of abuse during pregnancy vary and reported rates range from 0.9% to 37%, depending on population and inclusion criteria, with more current studies ranging from 4% to 8%, with rates increasing to 12% after delivery [38, 58, 61-64].

According to the literature, victims of IPV are mainly women and children [26]. The prevalence of experiencing physical violence at least once during lifespan in Austria is more than 50% for both, men and women [26, 65]. Every third woman and 10% of men have suffered from sexual abuse, and even 90% of women and 80% of men have experienced psychological violence [26, 65]. Violent behaviour is often accompanied by alcohol intake, which has meanwhile becoming a concerning public health issue [26, 66]. According to Hoskins et al., at least 14% of all patients admitted to ER in the UK are treated due to injuries attributed to alcohol intake [26, 67, 68]. Also IPV is often accompanied by alcohol intake, whereas this is not the only reason [26, 69].

Interesting findings in this direction have been reported by a study group around Sanz-Barbero from Spain. In Spain, in 2013, 20% of women who were murdered by their partner had reported him previously for IPV [70]. They also found out that 72.8% of women exposed to IPV did not report their aggressor. The most frequent reason for not reporting were not giving importance to the situation (33.9%), and fear and lack of trust in the reporting process (21.3%) [70]. The main reason for withdrawing the complaint were associated of the violence (20.0%), and fear and threats (18.2%) [70]. The probability of reporting increased among women with young children who were abused, prevalence ratio 2.14 (95%CI: 1.54-2.98), and those whose mother was abused, prevalence ration 2.25 (95%CI: 1.42-3.57) [70]. The author concluded in an

urgent need to promote legal resources, especially among women who use them less: women who do not have children and who do not have previous family exposure [70].

A study in walk-in-clinics in Germany showed that more than half of all women seeking help have experienced violence (physical, sexual, or psychological) [26, 27]. In 71% of those cases, violent behaviour occurred at their own homes [26, 27].

Battered women are also at increased risk for substances abuse [9, 71]. In particular, the high rates of drug, alcohol, and cigarettes used by abused pregnant teenagers result in obstetrical complications and poor birth outcomes in a group already at increased risk for problem pregnancies [9, 60, 72].

Also the possible influence of obesity in victims of IPV should be discussed. A study by Davies et al. surveyed 1.179 women regarding demographics, obesity and IPV exposure using humiliated-afraid-rape-kick (HARK), an IPV screening tool [73]. In unadjusted analyses, obesity was more prevalent among women exposed to physical IPV (30%) and nonphysical IPV (27%), compared to women without IPV (20%) (p=0.002) [73]. In multivariable models, women reporting physical IPV had 1.67 times greater odds of obesity (95% CI:1.20-2.33) and women reporting nonphysical IPV had 1.46 times greater odds of obesity (95% CI:1.01-2.10), compared to women reporting no exposure [73]. This study extends prior data by showing, not only an association between physical IPV and obesity, but also an association between obesity and nonphysical IPV [73].

Another minority group within the IPV collective often neglected are deaf women [74]. Approximately 25% of hearing women in the US experience rape in their life-time, whereas deaf women have been found to experience increased rates of assault consistent with other marginalized populations [74]. Results revealed that more than two-thirds of the participants (69%) endorsed experiencing at least one assault and more than half (56%) experienced multiple types of assault [74]. Most assaults were committed by man known to the survivor [74]. Special attention should therefore be focused on deaf women and their injuries in the ER.

Another aspect influencing IPV cases is the household income. A study by Fanslow *et al*. conducted in New Zealand found out, that increased household income and both the respondent and her partner being employed, were associated with reduced likelihood that women would experience current as opposed to prior IPV [75]. This is also confirmed by a study from Iran, showing that women with lower education and living in low income households reported more intimate partner violence during pregnancy than well educated and affluent women [76].

Racial composition and marital status in IPV are other interesting aspects, seldom discussed due to its ambivalent affection [22, 63, 77, 78]. Disparities in perinatal problems evident in high risk populations may be partially attributed to IPV, which disproportionately impacts women who are young, poor, less educated and racial/ethic minorities [63]. This is in contrary to Sugg *et al.* stating no differences in women's race when it comes to IPV [77]. Despite the fact that racial and ethnic differences underlying the association between IPV and unintended pregnancy are inconsistent, Masho *et al.* could detect in a study with 108.220 women significant and ethnic differences in the association between IPV and unintended pregnancy [78]. Additionally, the association differed by marital status [78].

According to the 2010 National Intimate Partner and Sexual Violence Survey, non-Hispanic Black and NativAmerican/Alaska Native women reported higher prevalence rates of lifetime IPV (43.7% and 46% respectively) compared to non-Hispanic White women (34.6%); the rate for Hispanic women was slightly higher (37.1%) [8, 79]. These disproportionate rates have also been consistently documented in multiple US studies [8, 80-82]. This goes also hand in hand with the influence of migration. Marginalized populations such as women who are foreign born, are also more likely to experience IPV than those born in the U.S. [8]. Physically abused Latinas residing in the US but born in Mexico, Central America, South America, and the Caribbean are more likely to experience sexual IPV compared to their counterparts born in the US [8, 82, 83]. Moreover, 48% of Latinas in another study reported that their partners' violence had increased after they immigrated to the U.S. [8, 84, 85]. Asian immigrant women also experienced high rates of IPV, with community-based studies based on non-representative samples documenting rates between 24% and 60% [8, 86-88].

In a study investigation IPV in a total of 804 Thai women residing in Sweden, 22.1% reported lifetime exposure to IPV and 9.2% had been exposed to IPV since they moved to Sweden. It should be noted that IPV by a current partner was rather low (6.7%) compared to previous experiences of abuse (20.5%), and most of the women in this sample had ever been exposed to abuse, but showed poor mental health [89].

Many immigrant women experienced IPV in the context of language difficulties, confusion over their legal rights, and overall stress of adaption to new cultural and social structures [8,90]. Immigrant women are especially vulnerable because of poverty, social isolation, disparities in economic and social resources and immigration status [8, 90].

Pregnant, disabled and ethnic minority women are the groups most often mentioned in relation to IPV [25]. Teng *et al*. stated, that social integration is a key risk factor, and social services aimed to reduce IPV and integrate migrants in their new communities [91]. This is also in line with a finding by O`Connoer *et al*. publishing that the exacerbation of domestic violence by migration is a salient social determinant proof of mental health [92].

Other factors that might influence the occurrence of IPV in women are faith-based communities with unique characteristics [93] and perceptions of their abusive marital relationship [23]. Sheltered women reported a desire to be more dominant and less submissive in the relationship with their abusive spouse, despite being less dominant than they wished in practice [23]. Also IPV in the elderly is a complex phenomenon often neglected and overseen [94, 95].

DIAGNOSIS IN IPV CASES

A published study by Burkert *et al*. in 2013, investigated violence in an urban ER in a Austrian population over a period of 3 months, including both sexes [26]. A total of 15% of all victims reported IPV (75% women) and others (90% men) reported brawl as the reason for visiting an ER [26]. Overall, 80% of the victims were younger than 40 years [26]. In case of domestic violence, two-third (only women) reported that they were hurt by their intimate partner [26]. A total of 50% were treated for head wounds and 35% had injuries of their extremities [26]. One-third of the patients were alcoholised [26]. In case of IPV, about one-third suffered from injuries of their extremities, often the consequences of defense, but only one-fifth of the victims of brawl had these kinds of injuries [26]. Injuries to the breast, chest, and abdomen are more common in battered women, as are the presence of multiple old and current injuries [9, 96, 97]. Defensive injuries are common, like fractures, dislocations, and contusions of the wrist and lower arms as results to defend attempts to the chest or face [9]. Injuries inconsistent with the patient's explanation of the mechanism of injury should also raise suspicion of abuse [9]. Also a higher risk for human immunodeficiency virus (HIV) in female victims of IPV is stated in the literature [9, 98, 99].

Battering can begin or escalate during pregnancy and common sites of abuse include gravid abdomen, breasts, and genital areas [9, 37, 38, 60, 71]. Therefore IPV must be considered in all pregnant women presenting with traumatic injuries [9, 58]. Also the occurrence of human bite wounds, especially at genitals, can be likely overlooked [100, 101]. The transmission of HIV or hepatitis B or C is discussed controversial in the current literature [100, 101].

In contrast to the reported data is a study by Hackenberg *et al*. [95]. Contrary to previous studies, 17% of his cohort were male, while 17% of patients were 65 years or older [95]. 40% of male victims presented with a New Injury Severity Score (NISS) over 15, indicating severe trauma [95].

A study from China (n=372, 3 years inclusion period, 54 male, 318 female) revealed the following findings [102]. Male victims were more likely to have abrasions/scrapes (66.7%), human bites (20.4%), and laceration/cutting (18.5%) than female victims (31.4%, 1.3%, 6.9%; $p<0.001$, $p<0.01$, $p<0.001$, respectively) [102].

PREVENTION AND OUTLOOK FOR IPV

An estimated $5.8 billion is spent annually as a result of medical and mental health costs and loss of productivity associated with IPV [8]. Considering total annual health care costs for physically abused women, the highest costs were for on going abuse (42 % higher compared with non abused women), followed by recent (24 % higher compared with non abused women) and remote abuse (19% higher) [103]. Women with nonphysical abuse only had annual costs that were 33% higher than non abused women [103]. A study by Chan et al. investigated the readmission rate of victims of IPV (n=10.839), child abuse and neglect (CAN) (n=3.491), and elder abuse (EA) (n=1.467) after initial ER visit [104]. Rates of readmission were 12.9% for IPV, 12.8% for CAN, and 8.9% EA [104]. Those data showed that better screening would improve identification, and as a consequence might reduce the readmission rates and the associated costs [104].

Despite that huge amount, the removal of financial constraints suffered by abused women, in support or their training needs, as well as reduced barriers to preventive health care services, may potentially lead to fiscal resource savings in the long run [105].

When it comes to battered women shelters, improvements in the directions of individual needs and reducing personal barriers should be performed [21, 106].

It also should be mentioned, that women after separating from an abusive partner are more likely to be victims of workplace bullying [107]. This is in line with other findings, stating that workplace bullying was associated with child sexual abuse, adult sexual assault, and on going partner abuse [107]. This has to be seen with special interest due to the fact, that those women are mostly from ethnic minorities with low income and therefore a worse start position for a job, compared to others.

Subsequent responses recommended include validation, affirmation and support, safety assessment

and planning (both for the woman and any child), counselling and referral to IPV specialist services. Better training is needed for clinicans in this area [2]. Future research is needed to compare identification methods, and further assess psychological, advcocacy and safety planning interventions, primary prevention and perpetrator intervention [2].

CONCLUSIONS

Intimate partner violence (IPV) is a common problem mostly associated with women, but seldom occurs with men. Forms of IPV can be various but can be subdivided best in two main groups: physical and sexual forms, and psychological forms.

Detection of IPV is the main challenge, because a success on this battlefield leads to a direct improvement in treatment and prevention of IPV, and therefore not only affects women who are already victims of partner abuse, but also protect women in the future. The question, whether a general screening or a point balance inquiry, performed by a questionair, a computer or a human subject might be superior, cannot be answered in general. The only recommendation in this direction should be, to be more suspicious in women admitted to the ER, especially if they are associated with various risk factors for IPV as mentioned in this review.

Factors that are influencing the occurrence of IPV are various, but the physician in charge should be alerted if one of the following facts appear to apply to a patient: Ethnic minorities, low income household, pregnant, miscarriage in the personal history, conspicuous alcohol or drug intake, violence in their direct surrounding, obese or deaf, problems with local language, unemployed, and mentally or physically handicapped.

Diagnosis in IPV victims can show a wide range of variety. Mostly they present as wounds to the head or the extremities, and sometimes as a blunt trauma to the abdomen. Also in this aspect suspicion should be raised if the presented injuries do not fit to the patients story of origin, often associated with multiple changes within a short time.

Prevention is the main goal to improve the life of possible future victims of IPV, and for those who were already a victim, state of the art treatment and assistance should be available, with no personal or cultural boundaries or inhibition thresholds.

IPV is a rising problem for our society, not only because of a strong association with rising healthcare costs, but more to the fact that it represents a moral obligation of society and healthcare providers to help underprivileged victims.

CONFLICT OF INTEREST

We hereby certify that there are no actual or potential conflicts of interest for the authors of the present paper. There are no undisclosed financial or personal relationships with other people or organizations that could inappropriately influence our work.

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REFERENCES

1. Messing JT, Ward-Lasher A, Thaller J, Bagwell-Gray ME; The state of intimate partner violence intervention: progress and continuing challenges. Soc Work, 2015; 60(4):305-13.
2. Valpied J, Hegarty K; Intimate partner abuse: identifying, caring for and helping women in healthcare settings. Womens Health, 2015; 11(1):51-63.
3. Rennison CM, Welchans S; BJS Statisticans. Intimate Partner Violence. Bureau for Justice Statistics. 2001;1-11.
4. Tjaden P, Thoennes N; Prevalence, incidence and consequences of violence against women: Findings from the national violence against women survey. US Department of Justice, 1998; 1-16.
5. American Bar Association; The Commission on Domestic Violence: Statistics. American Bar Association, 2000.
6. Trautman DE, McCarthy ML, Campbell JC, Kelen GD; Intimate partner violence and emergency department screening: Computerized screening versus usual care. Ann of Emerg Med., 2007; 49(4):526-34.
7. Warren-Gash C, Bartley A, Bayly J, Dutey-Magni P, Edwards S, Madge S, Miller C; Outcomes of domestic violence screening at an acute London trust: are there missed opportunities for intervention? BMJ Open, 2016; 6e009069.
8. Stockman JK, Hayashi H, Campbell JC; Intimate partner violence and its health impact on disproportional affected populations, including minorities and improverished groups. J Women's Health, 2015; 24(1):62-79.
9. Guth AA, Pachter HL; Domestic violence and the trauma surgeon. Am J Surgery, 2000; 179:134-40.
10. Campbell JC; Health consequences of intimate partner violence. Lancet2002;359:1331-6.Campbell JC. Domestic violence as a women's health issue: panel discussion. Womens Health Issues, 2001; 11:381-7.
11. Campbell J, Jones AS, Dienemann J, Kub J, Schollenberger J, O'Campo P; Intimate partner violence and physical health consequences. Arch Int Med., 2002; 162:1157-63.
12. Coker AL, Smith PH, McKeown RE, King MJ; Frequency and correlates of intimate partner violence

by type: physical, sexual and psychological battering. Am J Publiv Health, 2000; 90(4):553-9.
13. Plichta SB, Falik M; Prevalence of violence and its implicatons for women's health. Womens Health Issues, 2001; 11:244-58.
14. Krug EG, Mercy JA, Dahlberg LL, Zwi AB; The world report on violence and health. Lancet, 2002; 360:1083-8.
15. McCloskey LA, Lichter E, Ganz ML, Williams CM, Gerber MR, Sege R; Intimate partner violence and patient screening across medical specialities. Acad Emerg Med., 2005; 12(8):712-22.
16. Abbot J, Johnson R, Koziol-McLain J, Lowenstein SR; Domestic violence against women. Incidence and prevalence in an emergency department population. JAMA, 1995; 273:1763-7.
17. Krasnoff M, Moscati R; Domestic violencescreening and referral can be effective. Ann Emerg Med., 2002; 40:485-92.
18. Koziol-McLain J, Coates CJ, Lowenstein SR; Predictive validity of a screen for partner violence against women. Am J Prev Med., 2001; 21:93-100.
19. Dearwater S, Coben J, Campbell JC, Nah G, Glass N, McLoughlin E; Prevalence of intimate partner abuse in women treated at community hospital emergency departments. JAMA, 1998; 280:433-8.
20. Haywood YC, Haile-Mariam T; Violence against women. Emerg Med Clin North Am., 1999; 17:603-15.
21. Wessels I, Ward CL. Battered women and parenting: acceptability of an evidence-based parenting programme to women in shelters. J Child Adolesc Ment Health, 2016; 28(1):21-31.
22. Mossiere A, Maeder EM, Pica E; Racial composition of couples in battered spouse syndrome cases: a look at juror perceptions and decisions. J Interpers Violence 2016; 0886260516632355.
23. Sommerfeld E, Shechory Bitton M; Sheltered women´s perceptions of their abusive marital relationship: conflictual themes of dominance and submissiveness. Health Care Women Int., 2015.
24. Sleutel MR; Women's experiences of abuse: a review of quality research. Issues Ment Health Nurs., 1998; 19(6):525-39.
25. Ortiz-Barreda G, Vives-Cases C, gil-Gonzalez D; Worldwide violence against women legislation: an equity approach. Health Policy, 2011; 100(2-3):125-33.
26. Burkert NT, Rasky E, Freidl W, Großschädl F, Muckenhuber J, Krassnig R; Female and male victims of violence in an urban emergency room-prevalence, sociodemographic characteristics, alcohol intake, and injury patterns. Wien Klin Wochenschr, 2013; 125:134-8.
27. Hellbernd H, Brzank P, Wieners K, Maschewsky-Schneider U; Häusliche Gewalt gegen Frauen: gesundheitliche Versorgung. Das S.I.G.N.A.L.-Interventionsprogramm. Handbuch für die Praxis. Wissenschaftlicher Bericht, 2004.
28. Fernandez-lansac V, Crespo M; Narrative length and speech rate in battered women. PLoS One, 2015; 10(11):e0142651
29. Haj-Yahia MM, Shen AC; Beliefs about wife beating among social work students in Taiwan. Int J Offender Ther Comp Criminol., 2015; 0306624X15621898.
30. Caralis PV, Musiallowski R; Women´s experiences with domestic violence and their attitudes and expectations regarding medical care of abuse victims. South Med J., 1997; 90:1075-80.
31. Hayden SR, Barton ED, Hayden M; Domestic violence in the emergency department: how do women prefer to disclose and discuss the issue? J Emerg Med., 1997; 15:447-51.
32. Bullock KA, Schornstein SL; Improving medical care for victims of domestic violence. Hosp Phys. 1998;42-58.
33. McAfee RE. Physicians and domestic violence: can we make a difference? JAMA, 1995; 273:1790-1.
34. Roberts GL, O`Tool BI, Raphael B, Lawrence JM, Ashby R; Prevalence study of domestic violence victims in an emergency department. Ann Emerg Med., 1996; 27:747-53.
35. McGrath ME, Bettacchi A, Duffy SJ, Peipert JF, Becker BM, St Angelo L. Violence against women: provider barriers to intervention in emergency departments. Acad Emerg Med., 1997; 4(4):297-300.
36. Council on Scientific Affairs, American Medical Association; Violence ahainst women: relevance for medical practitioners. JAMA, 1992; 267:3184-9.
37. Melvin SY, Rhyne MC; Domestic violence in Advances in Internal Medicine, St. Louis: Mosby, 1998; 43:1-25.
38. El-Bayoumi G, Borum ML, Haywood Y; Domestic violence in women. Med Clin north Am., 1998; 82:391-401.
39. Kothari RU, Kothari C, DeBoer M, Koestner A, Rohs T; Inpatient hospitalization and intimate partner violence: who are we treating? J Trauma Acute Surg., 2014; 77(1):129-36.
40. Erickson MJ, Hill TD, Siegel RM; Barriers to domestic violence screening in the pediatric setting. Pediatrics, 2001; 108:98-102.
41. Parsons LH, Zaccaro D, Wells B, Stovall TG; Methods of and attitudes toward screening obstetrics and gynecology patients for domestic violence. Am J Obstet Gynecol., 1995; 173(2):381-6.
42. Rodriguez MA, Bauer HM, McLoughlin E, Grumbach K; Screening and intervention for intimate partner abuse: practices and attitudes of primary care physicians. JAMA, 1999; 282:468-74.
43. Waalen J, Goodwin MM, Spitz AM, Peterson R, Saltzman LE; Screening for intimate partner violence by health care providers: barriers and interventions. Am J Prev Med., 2000; 19:230-7.
44. Rhodes KV, Drum M, Anliker E, Frankel RM, Howes DS, Levinson W; Lowering the threshold for discussions of domestic violence: a randomized controlled trial of computer screening. Arch Intern Med., 2006; 166:1107-14.

45. Hegarty K, Feder G, Ramsey J; Identification of partner abuse in health care settings: should health professionals be screening? In: Intimate partner abuse and health professionals. Roberts G, Hegarty K, Feder G (Eds).Elsevier, London UK, 2006.
46. Nyame S, Howard LM, Feder G, Trevillion K; A survey of mental health professionals' knowledge, attitude and preparedness to respond to domestic violence. J Ment Health, 2013; 22(6):536-43.
47. Rose D, Trevillion K, Woodall ADM, Feder GLMH; Barriers and facilitators of disclosures of domestic violence by mental health service users: a qualitative study. Br J Psychiatry, 2010; 198(3):189-94.
48. Cluss PA, Chang JC, Hawker L, Scholle SH, Dado D, Buranosky R, Goldstrohm S; The process of change for victims of intimate partner violence: support for a psychological readiness model. Womens Health Issues, 2006; 16(5):262-74.
49. Reisenhofer S, Seibold C; Emergency department care of women experiencing intimate partner violence: are we doing all we can? Contemp Nurse, 2007; 24(1):3-14.
50. Taft A, O'Doherty L, Hegarty K, Ramsay J, Davidson L, Feder G; Screening women for intimate partner violence in healthcare settings. Cochrane Database Sys Rev4, CD007007, 2013.
51. Feder G, Ramsay J, Dunne D, Rose M, Arsene C, Norman R; How far does screening women for domestic (partner) violence in different health-care settings meet criteria for a screening programme? Systematic reviews of nine UK National Screening Committee criteria.Health Technol Assess, 2009; 13(16)1-113,137-47.
52. Taket A, Wathen CN, MacMillan H; Should health professionals screen all women for domestic violence?PLoS Med., 2004; 1(1),e4.
53. Carrol AE; Finding what works to reduce violence against women. JAMA, 2015; 314(11):1105-6.
54. Ahmad F, Hogg-Johnson S, Stewart DE, Skinner HA, Glazier RH, Levinson W; Computer assisted screening for intimate partner violence and control: a randomized trial. Ann Intern Med., 2009; 151(2):93-102.
55. Humphreys J, Cooper BA, Miaskowski C; Occurrence, characteristics, and impact of chronic pain in formerly abused women. Violence Against Women, 2001; 17(10):1327-43.
56. Klevens J, Sadowski L, Kee R; Comparison of screening and referral strategies for exposure to partner violence. Womens Health Issues, 2012; 22:e45-52.
57. Sprague S, McKay P, Madden K, Scott T, Tikasz D, Slobogean GP, Bhandari M; Outcome measures of evaluating intimate partner violence programs within clinical settings: a systematic review of the literature. Trauma Violence Abuse, 2016; 1524838016641667.
58. Berrios DC, Grafy D; Domestic violence: risk dactors and outcomes. West J Med., 1991; 155:133-5.
59. Hillard PJA: Physical abuse in pregnancy. Obest Gynecol., 1985; 66:185-90.
60. Parker B, McFarlane J, Soeken K; Abuse during pregnancy: effects on maternal complications and birth weight in adult and teenage women. Obest Gynecol., 1994; 84:323-34.
61. Gazmararian JA, Lazorick S, Spitz AM, Ballard TJ, Saltzman LE, Marks JS; Prevalence of violence against pregnant women. JAMA, 1996; 275(24):1915-20.
62. Baird K; Women's lived experienceds of domestic violence during pregnancy. Pract Midwife, 2015; 18(3):27-31.
63. Cha S, Chapman DA, Wan W, Burton CW, Masho SW; Intimate partner violence and postpartum contraceptive use: the role of race/ethnicity and prenatal birth control counselling. Contraception, 2015; 92:268-75.
64. Scribano PV, Stevens J, Kaizar E; The effects of intimate partner violence before, during and after pregnancy in nurse visited first time mothers. Matern Child Health J., 2013; 17(2):307-18.
65. Kapella O, Baierl A, Rille-Pfeiffer C, Geserick C, Schmidt EM, Schröttle M; Gewalt in der nahen Familie und im sozialen Umfeld. Österreichisches Institut für Familienforschung an der Universität Wien, 2011. http://www.oif.ac.at/publikationen
66. World Health Organisation; Wprld report on violence and health. 2002. http://www.who.int/violence_injury_prevention/violence/world_report/en/summary_ge.pdf
67. Hoskins R, Benger J; What is the burden of alcohol-related injuries in a inner city emergency department? Emerg Med J., 2012.
68. Ferns T; Recording violent incidents in the emergency department. Nurs Stand, 2012; 26(28):40-8.
69. Leonard KE; Alcohol and intimate partner violence: when can we say that heavy drinking is a contributing cause of violence? Editorial. Addiction, 2005; 100:422-5.
70. Sanz-Barbero B, Otero-Garcia L, Vives-Cases C; factors associated with women's reporting of intimate partner violence in Spain. J Interpers Violence 2016; 0886260515625512.
71. Sisley A, Jacobs LM, Poole G, Campbell S, Esposito T; Violence in America: a public health crisis-domestic violence. J Trauma, 1999; 46:1105-13.
72. Lesser J, Escoto-Lloyd S; Health-related problems in a vulnerable population: pregnant teens and dolescent mothers. Nurs Clin North Am., 1999; 34:289-9.
73. Davies R, Lehman E, Perry A, McCall-Hosenfeld JS; Association of intimate partner violence and health-care provider-identified obesity. Women Health, 2015; 23:1-15.
74. Elliott-Smith RA, Pick LH; Sexual assault experienced by deaf female undergraduates: prevalence and characteristics. Violence Vict., 2015; 30(6):948-59.
75. Fanslow J, Gulliver P; Exploring risk and protective

factors for recent and past intimate partner violence against New Zealand women. Violence Vict., 2015; 30(6):960-83.
76. Tavoli Z, Tavoli A, Amirpour R, Hosseini R, Montazeri A; Quality of life in women who were exposed to domestic violence during pregnancy. BMC Pregnancy and Childbirth 2016; 16(19): DOI 10.1186/s12884-016-0810-6.
77. Sugg N; Intimate partner violence: prevalence, health consequences, and intervention. Med clin North Am., 2015; 9983:629-49.
78. Masho SW, Rozario S, Walker D, Cha S; Racial differences and the role of marital status in the association between intimate partner violence and unintended pregnancy. J Interpers Violence 2016; 0886260516635317.
79. Black MC, Basile KC, Breidinger MJ, Ryan GW; Prevalence of sexual violence against women in 23 states and two U.S. territories, BRFSS 2005. Violence Against Women, 2014; 20(5):485-499.
80. Halpern CT, Spriggs AL Martin SL, Kupper LL; Patterns of intimate partner violence victimization from adolescence to young adulthood in a nationally representative sample. J Adolesc Health, 2009; 45:508-16.
81. Wahab S, Olson L; Intimate partner violence and sexual assault in Native American communities. Trauma Violence Abuse, 2004; 5:353-66.
82. Cho H; Racial differences in the prevalence of intimate partner violence against women and associated factors. J Interpers Violence, 2012; 27:344-63.
83. Cavanaugh CE, Messinger JT, Amanor-Boadu Y, O'Sulivan CO, Webster D, Campbell J; Intimate partner sexual violence: a comparison of foreign versus US born physically abused Latinas. J Urban Health, 2014; 91:122-35.
84. Dutton M, Orloff LE, Aguilar Hass G; Characteristics of help-seeking behaviors, resources and services needs of battered immigrant Latinos: legal and policy implications. Georgetown J Poverty Law Policy, 2000; 7:245-305.
85. Lown EA, Vega WA; Prevalence and predictors of physical partner abuse among Mexican American women. Am J Public Health, 2001; 91(3):441-5.
86. Raj A, Silverman JG; Immigrant South Asian women at greater risk for injury from intimate partner violence. Am J Public Health, 2003; 93:435-7.
87. Song YI; Battered women in Korean immigrant families: the silent scream. New York: Garland Publishing, 1996.
88. Lee YS, Hadeed L; Intimate partner violence among Asian immigrant communities: health/mental health consequences, help-seeking behaviors, and service utilization. Trauma violence abuse, 2009; 10:143-70.
89. Fernbrandt C, Emmelin M, Essen B, Östergren PO, Cantor-Graae E; Intimate partner violence and poor mental health among Thai women residing in Sweden. Glob Health Action, 2014; 7:24991.
90. Runner M, Yoshihama M, Novick S; intimate partner violence in immigrant and refugee communities: challenges, promising practices and recommendations. Princeton, NJ: Family Violence Prevention Fund, Robert Wood Johnson Foundation, 2009.
91. Teng P, Hall BJ, Li L; The association bezween social resources and depression among female migrants affected vy domestic violence. Eu J Psychotraumatol., 2014; 5:26528.
92. O´Connor M, Colucci E; Exploring domestic violence and social distress in Australian-Indian migrants through community theater. Transcult Psychiatry, 2016; 53(1):24-44.
93. Band-Winterstein T, Frd A; Walking between the raindrops: intimate partner violence in the ultra-orthodox society in Israel from social workers' perspective. J Interpers Violence, 2016; 0886260516633218.
94. Yan E, Chan KL; Prevalence and correlates of intimate partner violence among older Chinese couples in Hong Kong. Int Psychogeriatr, 2012; 24(9):1437-46.
95. Hackenberg EA, Sallinen V, Koljonen V, Handolin L; Severe intimate partner violence affecting both young and elderly patients of both sexes. Eur J Trauma Emerg Surg 2016. (Epub ahead of print) PMID: 26936195
96. Muelleman RL, Lenaghan PA, Pakieser RA; Battered women: injury types and locations. Ann Emerg Med., 1996; 28:486-92.
97. Stark E, Flitcraft A, Frazier W; Medicine and patriarchal violence: the social construction of a "private event". Int J Health Serv., 1979; 9:461-93.
98. Fischbach RL, Herbert B; Domestic violence and mental health: correlates and conundrums within and across cultures. Soc Sci Med., 1997; 45:1161-75.
99. Molina LD, Basinait-Smith C; Revisiting the intersection between domestic abuse and HIV risk. Am J pub Health, 1998; 88:1267-8.
100. Jaindl M, Oberleitner G, Endler G, Thallinger C, Kovar FM; Management of bite wounds in children and adults an analysis of over 5000 cases at a level I trauma centre. Wien Klin Wochenschr, 2015; PMID: 26659907
101. Jaindl M, Grünauer J, Platzer P, Endler G, Thallinger C, Leitgeb J, Kovar FM; The management of bite wounds in children – a retrospective analysis at a level I trauma centre. Injury, 2012; 43(12):2117-21.
102. Choi AW, Wong JY, Kam CW, Lau CL, Wong JK, Lo RT; Injury patterns and help-seeking behaviour in Hong Kong male intimate partner violence victims. J Emerg Med., 2015; 49(2):217-26.
103. Bonomi AE, Anderson ML, Rivara FP, Thompson RS; Health care utilization and costs associated with physical and nonphysical-only intimate partner violence. Health Serv Res., 2009; 44(3):1052-67.
104. Chan KL, Choi WM, Fong DY, chow CB, Leung M, Ip P; Characteristics of family violence victims presenting to emergency departments in Hong Kong. J Emerg Med., 2013; 44(1):249-58.

105. DeRiviere L; Pay now or pay later: an economic rationale for state-funded helping services to assist women leaving an abusive relationship. Violence Vict., 2015; 30(5):770-97.
106. Renzetti CM, Follingstad DR; From blue to green: the development and implementation of a therapeutic horticulture program for residents of a battered women´s shelter. Violent Vict., 2015; 30(4):676-90.
107. MacIntosh J, Wuest J, Ford-Gilboe M, Varcoe C; Cumulative effects of multiple forms of violence and abuse on women. Violence Vict., 2015; 30(3):502-21.