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Intimate Partner Violence and Its Impact on Pregnant Women and Their Infants: A Systematic Review

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Abstract

In the United States, about 324,000 pregnant women are victims of Intimate Partner Violence (IPV) annually. IPV is any type of physical, sexual, or emotional abuse of women or men in family units. IPV has detrimental effects on pregnant women and their babies, from their physical health to their mental health. It is important for nurses and other healthcare providers to have knowledge and understanding about IPV in this population and to use effective interventions and screening procedures. The purpose of this systematic review is to review and critically analyze evidence about IPV in pregnant women. The literature search was conducted in a university database system and CINAHL. Literature was selected if it was peer-reviewed, scholarly, and relevant. The review of literature includes descriptions of studies, IPV outcomes, risk factors, and effects of screening methods and interventions on IPV victims or at risk victims.

Introduction

Domestic violence, also known as Intimate Partner Violence (IPV), includes any type of physical, sexual, or emotional abuse of women or men in family units. Physical abuse is considered to be acts of violence such as hitting, slapping, biting, or use of weapons. Sexual abuse is commonly seen as rape or forceful unwanted sexual contact. Emotional abuse, or psychological or mental abuse, is categorized by using words or manipulation to inflict harm. IPV is the most common type of gender-related violence (Tavoli, Tavoli, Amirpour, Hosseini, & Montazeri, 2016). Gender-related violence is considered violence directed toward a specific gender, in this case, violence against women. IPV is not just prevalent among women, but it occurs among men also; however the rate of IPV against men is lower than that of IPV against women. It is important to note that this research and its discussion is specific to pregnant women. According to the CDC, nearly 1 in 10 women in the United States has been raped by an intimate partner in her lifetime and about 16.9% of women have experienced some kind of sexual violence other than rape; women have a significantly higher lifetime prevalence of severe physical violence by an intimate partner (24.3%), and women also have a significantly higher lifetime prevalence of stalking by an intimate partner, adding up to 10.7% (The National Intimate Partner and Sexual Violence Survey, 2010). These statistics are important because although the CDC does not explicitly give statistics about pregnant women, these statistics are relevant to women in general. This means that when these affected women become pregnant, IPV may impact the health of their babies as well as the women's health. Although women experience IPV, it is highly prevalent worldwide among pregnant women. The American Congress of Obstetricians and Gynecologists states that the "true prevalence of IPV is unknown because many victims are afraid to disclose their personal experiences of violence" (The American

Congress of Obstetricians and Gynecologists, 2012). In the United States, about 324,000 pregnant women annually are victims of abuse. This abuse against pregnant women has been discovered to be associated with countless detrimental effects. For example, poor pregnancy weight gain, anemia, infection, stillbirth, pelvic fractures, placental abruption, low birth weight, preterm delivery, and fetal injury are common among pregnant victims of IPV (ACOG, 2012). All of these effects negatively impact the health of the fetus and the mother.

The problem of IPV is relevant to nursing in many ways. For example, healthcare professionals, especially nurses are dedicated to health promotion and prevention of disease and harm; IPV can be detrimental to the health of women and their babies. Nurses provide direct care of pregnant women, so they have access to a population with a high incidence of domestic violence. Since nurses have access to this population, it is important for them to screen women for IPV and impact the health of those who are victims, which includes women and babies. Nurses can be the first step towards recovery for victims of IPV (Romero-Gutierrez, Cruz-Arvizu, Regalado-Cedillo, & Ponce-Ponce de Leon, 2011) and it is important that nurses use research evidence to increase understanding and practice based on evidence. The goal of this systematic review is to identify, review, and critically analyze evidence about the effects of IPV screening tactics and interventions on outcomes in pregnant women experiencing IPV. Recommendations for practice will be evaluated based on the analysis of the studies. Variables include interventions of different types of screening methods, interventions, and the outcomes of IPV. This systematic review answers the following PICOT question: in pregnant women, how do screenings and interventions for IPV, compared to standard healthcare practice, impact IPV related psychosocial or physical outcomes in women and their babies? This systematic review includes research on pregnant women and their fetuses as well as mothers and their newborns.

Methods

The literature search was conducted within a university database system. The database included was CINAHL. Key words used in searches included domestic violence, pregnancy, outcome, newborn, fetus, intimate partner violence, abuse and psychological. Inclusion criteria for selecting studies included primary sources, studies done within the last 10 years, studies conducted both within and outside the United States, peer-reviewed, and scholarly articles. Exclusion criteria included secondary sources and systematic reviews. Publications were identified based on how relevant they were to the topic of domestic violence and pregnancy, journal articles based on studies about women, fetuses, new mothers, newborns, and outcomes of domestic violence on pregnant women, and studies about domestic violence. Journals included: Journal of Obstetric, Gynecologic, and Neonatal Nursing, Journal of Perinatology, Journal of Clinical Nursing, Journal of Women's Health, Reproductive Health Matters, Maternal & Child Health Journal, Midwifery, BMC Pregnancy & Childbirth, Journal of Reproductive & Infant Psychology, British Journal of Midwifery, Indian Journal of Psychological Medicine, and Culture, Health & Sexuality. Studies were selected to be comprehensive in trying to identify all major relevant research by including research about the outcomes on development of fetuses/newborns, psychological impacts on pregnant women, interventions, and the severity of domestic violence. Research was critically evaluated to determine that it was scholarly, peer-reviewed, and pertained to the topic of domestic violence. Articles and journals were chosen that included studies about domestic violence and pregnancy. Bias was avoided when identifying and extracting studies about intimate partner violence and outcomes by extracting studies showing both positive, negative, and no outcomes of interventions and screenings on pregnant women who are victims of intimate partner violence. Some studies discussed outcomes where effective

interventions are not set in motion. It is important in this systematic review to include research that varies and shows different aspects of the results of intimate partner violence.

Review of Literature

Description of Studies

Designs varied across the collection of primary sources with cohort studies (Audi, Segall-Correa, Santiago & Perez-Escamilla, 2012; Finnbogadóttir, Dykes & Wann-Hansson, 2016; Flach, Leese, Heron, Evans, Feder, Sharp & Howard, 2011), cross-sectional studies (Alhusen., Bullock, Sharps, Schminkey, Comstock & Campbell, 2014; Fonseca-Machado, Alves, Monteiro, Stefanello, Nakano, Haas & Gomes-Sponholz, 2015; Mann, Mannan, Quiñones, Palmer & Torres, 2010; Taillieu, Brownridge, Tyler, Chan, Tiwari & Santos, 2015), case studies (Audi, Segall-Correa, Santiago & Perez-Escamilla, 2012; Bacchus, Bewley, Vitolas, Aston, Jordan & Murray, 2010), qualitative studies (Pires de Almeida, Sá, Cunha & Pires, 2013; Keeling, 2012; Shamu, Abrahams, Temmerman & Zarowski, 2013), descriptive studies (Tavoli, Tavoli, Amirpour, Hossein, & Montazeri, 2016), and randomized control trials (Cripe, Sanchez, Sanchez, Quintanilla, Alarcon, Gelaye & Williams, 2010; Krishnan, Subbiah, Chandra & Srinivasan, 2012). Levels of evidence ranged from two to six, with almost half of the literature having levels of six. Across studies, researchers have found that IPV negatively affected maternal and neonatal outcomes, and that interventions, such as increased, more in-depth screening and education, decrease negative outcomes. Sample sizes ranged from 15 to 13,617, with an average sample size of 1,148 participants. A majority of the studies took place outside of the United States. Two studies took place in Brazil (Audi et al., 2012; Fonseca-Machado et al., 2015), one in Sweden (Finnbogadottir et al., 2016), one in Portugal (Pires de Almeida et al., 2013), one in Iran (Tavoli et al., 2016), four in the United Kingdom (Keeling et al., 2011/2012;

Flach et al., 2011; Bacchus et al., 2010), one in Mexico (Romero-Gutierrez et al., 2011), one in Belgium (Jeanjot et al., 2008), four in the United States (Duncan et al., 2006; Lutgendorf et al., 2012; Alhusen et al., 2014; Mann et al., 2016), two in India (Jacob et al., 2014; Krishnan et al., 2012), one in Zimbabwe (Shamu et al., 2013), one in Canada (Taillieu et al., 2015), and one in Peru (Cripe et al., 2010).

Researchers sampled the population in different ways. Interviews with structured questionnaires and screenings (Jeanjot et al., 2008) and the systematic recruiting of every fourth woman in an outpatient clinic (Fonseca-Machado et al., 2015) were two ways in which subjects were sampled. Others sampled by conveniently recruiting women who were showing up for their prenatal visit, 16 week visit, 28 week visit, first infant visit, etc. (Duncan et al., 2006; Mann et al., 2010). Women were also recruited when they showed up in triage (Lutgendorf et al, 2012). Majority of these women were sampled by recruiting at doctor's visits, rather than through questionnaires. Many of these studies relied on pregnant women's self-reporting the domestic violence rather than actively screening the women. This creates a possible limitation because the violence could be underestimated or underreported. Researchers also utilized various tools to collect data. Flach et al. (2011) used the Revised Rutter Questionnaire to measure the potential effects violence had on children up to 42 months old. In a study conducted by Fonesca-Machado et al. (2015), the Edinburgh Postnatal Depression Scale was used to measure depressive symptoms in postnatal women. In addition, the Abuse Screening Scale measured violence and abuse in pregnant mothers (Jacob et al., 2014). Flach et al. (2011) followed the mother and fetus beginning at 18 weeks gestation up to 42 months post-birth; however, the others did not follow women and babies long-term which limited the results of the studies. However, there are still several limitations of findings, including small samples (Tavoli et al.,

2016; Keeling, 2012; Bacchus et al., 2010; Jacob et al., 2014; Shamu et al., 2013; Krishnan et al., 2012) and possible incidences of recall bias, resulting in underestimated and underreported domestic violence (Audi et al., 2012; Finnbogadottir et al., 2016; Fonseca-Machado et a., 2015; Keeling, 2011; Lutgendorf et al., 2012; Romero-Gutierrez et al., 2011) . For example, when dealing with intimate information like IPV, women might withhold information because of fear of embarrassment or retaliation of partners. Data from corroborating sources, like medical histories, may not have been included which poses as another limitation in findings.

Outcomes of IPV

Women who experience IPV during pregnancy have adverse clinical, physical, and psychological outcomes. Pregnant women have higher rates of maternal and neonatal complications during their pregnancies due to IPV, leading to poorer pregnancy outcomes. Victims of sexual violence had more maternal complications, whereas victims of psychological violence had more neonatal complications (Romero-Gutierrez et al., 2011). Infections of the reproductive tract were reported by about 50% of women who were victims of physical or sexual violence; these infections had severe impacts on the fetus, especially if left untreated (Audi et al., 2012). Vaginal bleeding had an increased rate among victims, along with headaches. Pregnant victims of IPV have an increased risk of adverse health outcomes during pregnancy than women who have not been exposed to IPV; these victims also have higher stress levels. Increased stress among victims of IPV has the potential to lead to the development of chronic diseases, such as cardiovascular disease, which will negatively affect the mother and the fetus (Audi et al., 2012).

Pregnant women who are victims of IPV also experience poor physical and mental health. Although physical violence impacts women’s quality of life, it has been shown that psychological violence has detrimental effects on women’s physical and mental health (Tavoli et

al., 2016). Psychological violence has a higher rate of negative effects because it is not as easily identifiable as physical violence. This psychological violence causes women to have an altered psyche, or mental attitude, which may contribute to a diminished quality of life. Psychological IPV decreases women's quality of life by inhibiting their ability to feel safety for themselves and their babies (Tavoli et al., 2016). According to Flach et al. (2011), violence during pregnancy was highly associated with postpartum violence; 71% of IPV victims during pregnancy experienced postpartum violence. Jacob et al. (2014) found that women who experienced IPV during pregnancy had higher rates of postnatal depression. Not only is postpartum depression a result of IPV, but IPV has been linked to higher rates of STIs, attempted suicide, HIV infection, anxiety, and termination of current and future pregnancies (Jacob et al., 2014).

In addition, children's behaviors, which were studied up to 42 months of age, were shown to be negatively affected by IPV (Flach et al., 2011). Children whose mothers were victims of IPV during pregnancy had more difficulty adjusting and adapting to changes in childhood rather than children whose mothers were not abused. Children of abused women were found to have more psychological issues and increased difficulty coping (Flach et al., 2011). Another outcome of IPV includes poor maternal attachment to their babies in which the mothers do not seem to bond with newborns. These mothers may be unable to provide safe and secure bases for their infants because they feel unsafe in their own environments; this has been associated with higher rates of infant neglect and abuse (Pires de Almeida et al., 2013). Newborns rely heavily on their mother throughout the pregnancy and postpartum period to provide and care for them. Due to the mother's association of IPV during pregnancy with negative thoughts about the fetus, it may be difficult for victims of IPV to form maternal attachments to their children, which can negatively impact children's growth, development, and

well-being. One example of this disoriented attachment is the decreased rate of breastfed infants among mothers who have experienced IPV; this lack of breastfeeding may result in the decreased health of the infant because they are not receiving the nutrients, immunities, and other advantages that result from breastmilk (Pires de Almeida et al., 2013).

Risk Factors for IPV

Women who are single, unemployed, or lived separately from significant others are at greater risk for domestic violence (Finnbogadottir et al., 2016). Women with a low educational level were 3.1 times more likely to experience IPV during pregnancy; women who lived alone or apart from their significant other reported to be 17.9 times more likely to be exposed to IPV while pregnant (Finnbogadottir et al., 2016). All women, who reported violence during pregnancy, reported having histories of violence. Women with depression, or lack of sleep were also put at risk for IPV; they were 15.8 times more likely to be victims if depressed during pregnancy and 9.6 times more likely to be victims if sleep deprived (Finnbogadottir et al., 2016). Financial distress and unintended pregnancies also increased incidence of IPV during pregnancy (Finnbogadottir et al., 2016). Women are also at increased risk for IPV during pregnancy if they lack strong support systems of family and friends (Jeanjot et al., 2008). Pregnant women who live in less developed countries have a higher risk of IPV during and after their pregnancy due to the lack of resources and awareness of IPV (Romero-Gutierrez et al., 2011). IPV has a higher incidence among women who are carrying a girl instead of the spouse's preferred boy (Jacob et al., 2014).

Effects of Screening Methods and Interventions

Researchers have studied the effects of IPV screening in pregnant women by nurses and healthcare professionals (Jeanjot et al., 2008). These interventions include: systematic screening

(Jeanjot et al., 2008), increased screening (Duncan et al., 2006), and special training for screening in HCP (Shamu et al., 2013), encouraging support from friends, family, and significant others (Cripe et al., 2010), and offering empowerment interventions (Cripe et al., 2010). Interventions have also included education programs (Duncan et al., 2006) and resources (Cripe et al.. 2006) for women in abusive relationships.

When researchers studied the effects of interventions on outcomes, they used interventions that increased empowerment in pregnant women. These empowerment interventions included education, resources, and on-site clinical support (Cripe et al., 2006). Krishnan et al. (2012) studied dyads of pregnant women and mother-in-laws regarding empowerment interventions about safety planning and monitoring of future domestic violence. The researchers found that the intervention resulted in women more likely to hide money for an escape, confide in friends and family, and establish code words for unsafe situations; however, these interventions did not significantly affect overall health or adoption of safe behaviors. According to Jeanjot et al. (2008), systematic screening should always be offered during pregnancy due to the high prevalence of IPV. When healthcare providers are trained to screen for partner violence, high screening practices can be achieved (Jeanjot et al., 2008). Education regarding screening can be done during staff meetings or using tools such as the Antenatal Psychosocial Health Assessment.

Increased screening of domestic violence provides improved compliance with the clinical protocol, increased opportunities for patient disclosure, education, treatment, and critical public health objectives (Duncan et al., 2006). Frequent screening of patients may transform private family matters into more public problems. Screening offers afflicted patients places to go with their concerns and raises awareness among the unaffected (Duncan et al., 2006). Bacchus et al.

(2010) evaluated domestic violence interventions in maternity and sexual health services in the UK and found that training of healthcare professionals increase use of routine questioning regarding domestic violence. Once it has then been discovered that domestic violence is apparent, on site support may improve the detection of domestic violence and women who receive support from these types of services are able to improve their situations. Maternity and sexual health services are early checkpoints for interventions to reduce domestic violence. Researcher have also found that victims may need to be asked about domestic violence several times before they are comfortable enough to disclose abuse or identify their experiences with abuse. Most women are not offended by domestic violence screening and actually promote routine screening (Lutgendorf et al., 2012). Nurses and other healthcare professionals must also be aware of the relationship status (Taillieu et al., 2015) and quality in general and alert of the signs of psychological stress among these women (Mann et al., 2010).

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Appendix A

Systematic Review Table of Evidence

APA formatted reference	Purpose statement. Research question[2].	Clinical Practice Setting, Sampling methods, Sample size[3].	Design. Level of Evidence.[4]	Findings, Conclusion[5]	Practice & Research Implications[6]	Limitations of Findings[7]
1. Audi, C. F., Segall-Corrêa, A. M., Santiago, S. M., & Pérez-Escamilla, R. (2012). Adverse health events associated with domestic violence during pregnancy among Brazilian women. *Midwifery*, *28*(4), 356-361. doi:10.1016/j.midw.2011.05.010	Purpose Statement: To examine the association between domestic violence (psychological and physical or sexual violence) and health problems self-reported by pregnant women. Research question: What is the relationship between domestic violence physical and/or mental health outcomes?	Setting: Campinas, Sao Paulo, Brazil Sampling method: cross-sectional analysis of a cohort study Sample size: 1,379 pregnant women attending prenatal care	Design: Cohort Studies or Case Control Studies Level of Evidence: Level 4	"domestic violence during pregnancy was associated with adverse clinical and psychological outcomes for women. These results suggest that a well-organised health-care system and trained health professionals, as well as multisectorial social support, are necessary to prevent or address the negative influence of domestic violence on women's health in Brazil" (416).	Need for future studies to adopt a more comprehensive approach to explain how domestic violence during leads to poor maternal health outcomes. Mixed methods using quantitative and qualitative approaches would likely further advance the knowledge in this field. MIxed methods would also allow researchers to better define and and operationalize the constructs that need to be measured.	Cross-sectional design, lack of clinical ascertainment of the adverse health outcomes reported by pregnant women, domestic violence can still be underreported
2 Finnbogadóttir, H., Dykes, A., & Wann-Hansson, C. (2016). Prevalence and incidence of domestic violence during pregnancy and associated risk factors: a longitudinal cohort study in the south of Sweden. *BMC Pregnancy & Childbirth*, *16*1-10. doi:10.1186/s12884-016-1017-6	Purpose statement: To explore the prevalence and incidence of domestic violence among pregnant women, their experience of history of domestic violence, and the association between domestic violence	Setting: southwestern region of Scania, Sweden Sample method: pregnant women age 18 and older who are registered at antenatal care; women who could understand and write Swedish or	Design: longitudinal cohort-study Level of Evidence: 4	Pregnant women with a history of violence, those who are single or living separately, and women who have several symptoms of depression and a lack of sleep are more at risk for domestic violence during their pregnancy.	Healthcare providers should update guidelines and plans of action for pregnant women exposed to domestic violence in order to improve health and results.	Results may potentially be biased and limited due to selection methods and criteria; the prevalence and incidence of domestic violence during pregnancy may be underestimated because of failure to distribute a second

	during pregnancy and possible risk factors Research question: What are the risk factors for domestic violence in pregnancy and how often does it occur in pregnant women?	English Sample size: 1939				questionnaire to 239 participants
3. Pires de Almeida, C., Sá, E., Cunha, F., & Pires, E. P. (2013). Violence during pregnancy and its effects on mother–baby relationship during pregnancy. *Journal Of Reproductive & Infant Psychology*, *31*(4), 370-380. doi:10.1080/02646838.2013.822058	Purpose statement: To study the effect of domestic violence during pregnancy in the mother-infant relationship. Research question: How does domestic violence impact the bonding and attachment of mother and baby?	Setting: OBGYN Department of the Hospital Pedro Hispano, Portugal Sampling method: Convenience sample of women age 16-25 in their third trimester; of Portuguese nationality Sample size: 204	Design: qualitative study Level of Evidence: 6	Pregnant women who suffer from domestic violence have a more negative view of their pregnancy. Also, those who suffered had poorer attachment to their fetus during pregnancy and to their newborn after delivery.	Healthcare professionals need to be adequately equipped to distinguish cases of maternal domestic violence. Once a case has been discovered, the healthcare professionals need to talk with the mother and help her to understand the impact the violence can have on her attachment to her baby; this can allow for the mother to get help to overcome this challenge of attachment.	Failure to obtain data on maternal social support and socio-economic characteristics; the mental health of the pregnant women was not investigated; results are not generalizable because it was based on a sample of convenience
4 Tavoli, Z., Tavoli, A., Amirpour, R., Hosseini, R., & Montazeri, A. (2016). Quality of life in women who were exposed to domestic violence during pregnancy. *BMC Pregnancy & Childbirth*, *16*1-7. doi:10.1186/s12884-016-0810-6	Purpose statement: To examine the quality of life of women who were exposed to domestic violence during pregnancy. Research question: How does domestic violence change a pregnant	Setting: a teaching hospital in Lorestan, Iran Sampling method: cross-sectional study; during a complete calendar year from March 2012 to March 2013 Sample size:	Design: descriptive study Level of Evidence: 6	Physical abuse was found to be highly associated with poor physical health; psychological abuse was highly associated with poor mental health. It was concluded that domestic violence was prominent in this area and heavily impacted quality of life among pregnant women.	Prevention and detection of domestic violence requires quick and urgent action by the healthcare team because this can help to improve the woman's quality of life and the health of her child.	The results could not be generalized to all women because it was a descriptive study with a limited sample size; also, a general questionnaire was used although more specific questions must be used in order to

	woman's quality of life?	230				explore different outcomes of different types of abuse
5 Keeling, J. (2012). Exploring women's experiences of domestic violence: Injury, impact and infant feeding. *British Journal Of Midwifery*, *20*(12), 843-848.	Purpose statement: To increase understanding of the impact domestic violence has on pregnant women; also, to understand how domestic violence affects a woman's self-perception and how this influences her infant feeding decisions. Research question: How does domestic violence influence infant feeding decisions?	Setting: UK Sampling method: women age 21-54 whom had lived with a male abuser of domestic violence Sample size: 15	Design: qualitative study Level of Evidence: 6	Domestic violence negatively impacts the woman's perception of herself and her body; this can affect the woman's choice to breastfeed because she experiences body dysmorphia.	It is important for healthcare professionals, especially midwives, to be aware of the woman's history with domestic violence. It is important to question about domestic violence and to build a safe and confidential rapport with the woman. This early detection and intervention can allow for adequate support, guidance, and safety measures.	Small sample size; only 6 out of the 15 women who participated chose to share their experiences of how the violence impacted their body image and feeding decisions
6. Romero-Gutierrez, Gustavo, Cruz-Arvizu, Victor Hugo, Regalado-Cedillo, Claudia Araceli, & Ponce-Ponce de Leon, Ana Lilia (2011). Prevalence of violence against pregnant women and associated maternal and neonatal complications in Leon, Mexico. *Midwifery*, 27(5), 750-753.	Purpose statement: To determine the prevalence of violence against women and associated maternal and neonatal complications in a developing country setting. Research question: How does domestic violence impact maternal and neonatal outcomes and complications?	Setting: postpartum area at a tertiary care referral hospital in Leon, Mexico Sample method: women 24-72 hours postpartum Sample size: 1623	Design: quantitative study Level of Evidence: 6	Maternal complications were found to be higher in women who were victims of violence; women who experienced sexual violence had more maternal complications whereas women who experienced psychological violence had more neonatal complications.	Healthcare professionals should be aware of women who are experiencing violence during antenatal care in order to avoid maternal and neonatal complications.	The findings do not represent a homogeneous Mexican population because the interviews were done in an urban tertiary care hospital; since the women were postpartum, there could be recall bias; the questionnaire was modified and used for the diagnosis and severity of violence, so these may not have been diagnosed accurately; the neonates were not followed for long-term

						complication discovery
7 Flach, C., Leese, M., Heron, J., Evans, J., Feder, G., Sharp, D., & Howard, L. (2011, June 22). Antenatal domestic violence, maternal mental health and subsequent child behaviour: A cohort study. *BJOG: An International Journal of Obstetrics & Gynaecology*, *118*(11), 1383-1391.	Purpose statement: To determine the long-term impact that domestic violence has on the mental health of the mother and child. Research question: What are the effects of antenatal domestic violence on the mother's mental health and her child's behavior?	Setting: Avon, UK Sampling method: Instances of domestic violence gathered at 18 weeks gestation up to 33 months post-birth Sample size: 13,617 mother/child couplets	Design: Cohort study Level of evidence:Level 4	Conclusions: Domestic violence in the antenatal period is associated with antenatal and postnatal depressive disorders, as well as postnatal domestic violence. Antenatal violence is also associated with behavioral issues in the child up to 42 months.	Nurses and other healthcare professionals should be aware that screening for domestic violence may help to prevent, or anticipate problems in the mother during pregnancy, as well as the child after birth (up to 42 months)/	There is a large amount of missing data due to the nature of the cohort study. Participants answered some questions and not others. Some provided only prenatal informations and not antenatal, and vice versa.
8 Jeanjot, I., Barlow, P., & Rozenberg, S. (2008). Domestic violence during pregnancy: survey of patients and healthcare providers. *Journal Of Women's Health (15409996)*, *17*(4), 557-567. doi:10.1089/jwh.2007.0639	Purpose Statement: To estimate the prevalence of domestic violence in women, to identify risk factors for domestic violence, to evaluate obstetrical complications, and to evaluate the attitude of health care providers toward screening for domestic violence. Research Question: How common, what are the risk factors, health care providers attitudes, and complications regarding domestic violence?	Setting: Belgium Sampling Method: systematically interviewed with structured questionnaires and screened Sample Size: 200 women, 56 health care providers	Design: Quantitative Study Level of Evidence: 6	Systematic screening for domestic violence should be recommended during pregnancy, considering its high prevalence.	When health care providers are trained to screen for partner violence, high screening practices can be achieved. Education can be done during staff meetings or using tools such as the Antenatal Psychosocial Health Assessment.	Not all answers could of been completely honest, did not interview women who had late spontaneous abortions, language barriers
9 Duncan, M., McIntosh, P., Stayton, C., & Hall, C. (2006). Individualized performance feedback to increase	Purpose Statement: To improve	Setting: Northeastern, Urban,	Design: prospective and	IPF was associated with increased DV screening among first and second	Frequent screening of all patients	An issue the article did not address is how

prenatal domestic violence screening. Maternal & Child Health Journal, 10(5), 443-449.	domestic violence screening among first and second year OBGYN residents. Research Question: How can clinical leaders improve adherence to domestic violence screening protocol?	Hospital-Based, prenatal clinic serving low income women Sampling Method: screening at first medical visit, week 16, and week 28 Sample Size: 12 OBGYN Resident Physicians -analyzed 518 visits	quantitative methods; quasi-experimental Level of Evidence: 6	year ob/gyn residents in this setting. Increased screening improved compliance with the clinical protocol and increased opportunities for patient disclosure, education, treatment, and critical public health objectives.	transforms a private family matter into a public problem Screening offers afflicted patients a place to go with their concerns and raises awareness among the unaffected.	much screening should be done.
10. Bacchus, L., Bewley, S., Vitolas, C., Aston, G., Jordan, P., & Murray, S. (2010). Evaluation of a domestic violence intervention in the maternity and sexual health services of a UK hospital. *Reproductive Health Matters*, *18*(36), 147-157. doi:10.1016/S0968-8080(10)36526-8	Purpose statement: To evaluate domestic violence interventions in the maternity and sexual health services of a UK hospital Research question: How did certain interventions help to educate about and decrease domestic violence?	Setting: UK Sample method: purposive sampling; women 1-22 months after they received support from the domestic violence advocacy service; women selected according to their clinical setting, length of abuse, living with the abuser or not at the time, pregnant or not, immigration status, access to money, and ethnic origin and first language; health professionals from that hospital area were chosen based on clinical setting, professional group, gender, and time since training	Design: case series Level of Evidence: 4	Training of healthcare professionals will help to implement routine questioning regarding domestic violence; once it has been discovered that domestic violence is apparent, on site support can improve the detection of domestic violence; women who receive support from these types of services are able to improve their situations	Maternity and sexual health services are early checkpoints for interventions to reduce domestic violence. Longitudinal studies are needed in order to determine if women who left their abusers were likely to go back to a different or the same abusive relationship.	The interventions were less successful with documentation of domestic violence; harm occurred due to breaches of confidentiality and failure to document evidence, which would in turn limit the woman's ability to access civil and legal remedies

		Sample size: 34				
11 Keeling, J., & Mason, T. (2011). Postnatal disclosure of domestic violence: comparison with disclosure in the first trimester of pregnancy. Journal Of Clinical Nursing, 20(1/2), 103-110. doi:10.1111/j.1365-2702.2010.03486.x	Purpose Statement: To explore the prevalence rates of domestic violence reported during the first trimester of pregnancy and in the postnatal period. Research question: What are the disclosure rates of domestic violence in the first trimester and postnatal period?	Setting: large university teaching hospital in the UK Sampling Method: drawn from same geographical area, collected data from women accessing hospital clinics Sample Size: 500 women on postnatal wards between 1-5 days postnatal were invited to participate, 221 responded	Design: quantitative study Level of Evidence: 6	Self-reporting rates of IPV in the first trimester compared to postnatally showed that 7.3% reported in the first trimester and 8% reported post-birth. An emotional response to disclosure may occur at specific periods of pregnancy and the timing of asking about domestic violence may be critical to this disclosure.	The primary objective of health care providers should be to engage a pregnant woman in a meaningful relationship, gaining her trust to facilitate the disclosure of domestic violence. The changing needs of the pregnant woman must be met.	The effects of the childbirth experience may have negated a woman's desire to recall violence in pregnancy. The sample was drawn from a predominantly white British population and could not be generalizable to a more diverse area. An access to the sample differed according to each clinic.
12 Lutgendorf, M. A., Thagard, A., Rockswold, P. D., Busch, J. M., & Magann, E. F. (2012). Domestic violence screening of obstetric triage patients in a military population. Journal Of Perinatology, 32(10), 763-769. doi:10.1038/jp.2011.188	Purpose Statement: To estimate the self-reported prevalence of domestic violence in a pregnant military population presenting for emergency care, and to determine the acceptability of screening. Research Question: What is the prevalence of domestic violence, risk factors, and acceptability of screening in the pregnant military population.	Setting: Naval Medical Center, Portsmouth, VA Sampling Method: Abuse Assessment Screen, women coming to the Labor and Delivery Triage Unit from October 2008-July 2009 Sample Size: 461 women	Design: cohort study Level of Evidence: 4	The self-reported prevalence of domestic violence in a pregnancy military population presenting for emergency care was 22.6%. Most women are not offended by domestic violence screening and promote routine screening.	Often victims needs to be asked about domestic violence several times before they are comfortable enough to disclose abuse or identify their experiences with abuse.	Relied on women's self-report of domestic violence which may have led to recall some bias. There also could of been selection bias between responders and non-responders.
13 Alhusen, J. L., Bullock, L., Sharps, P., Schminkey, D., Comstock, E., & Campbell, J. (2014).	Purpose Statement: To examine the	Setting: low income, Medicaid	Design: cross-sectional	Women experiencing greater severities of IPV were more likely to	Early recognition and	Substance use during pregnancy was

Intimate Partner Violence During Pregnancy and Adverse Neonatal Outcomes in Low-Income Women. Journal Of Women's Health (15409996), 23(11), 920-926. doi:10.1089/jwh.2014.4862	relationship between the severity of violence experienced during the perinatal period and delivering a neonate classified as SGA. Research Question: Do low income and minority women experience more disparities in IPV and poor neonatal outcome?	eligible, 12 rural midwestern health departments Sampling Method: <31 weeks, reporting abuse within the last 12 months, enrolled in perinatal home visiting program, screened with abuse assessment screen Sample Size: neonatal outcomes collected on 194 neonates	Level of Evidence: 4	deliver a neonate with an adverse outcome.	intervention of IPV is essential to reduce disparities in birth outcomes and long-term health outcomes for these neonates.	assessed during the self-report and is associated with adverse neonatal outcomes. Data on participants own birth history was not collected. Women in this study were enrolled in home visiting, requisite for study participation.
14 Fonseca-Machado, M. D., Alves, L. C., Monteiro, J. C., Stefanello, J., Nakano, A. M., Haas, V. J., & Gomes-Sponholz, F. (2015). Depressive disorder in pregnant Latin women: Does intimate partner violence matter? *Journal of Clinical Nursing, 24*(9-10), 1289-1299. doi:10.1111/jocn.12728	Purpose Statement: To determine the association between antenatal depressive symptoms and intimate partner violence during pregnancy. Research Question: Is there a relationship between antenatal depressive disorder symptoms and intimate partner violence in Brazilian women?	Setting: prenatal outpatient reference clinic for women at low obstetric risk, in Ribeirao Preto, Sao Paulo, Brazil Sampling method: Systematic sampling, selecting every fourth woman attending an outpatient clinic in the third trimester of pregnancy Sample size: 358 pregnant women	Design: Cross-sectional study, non-experimental Level of Evidence: 4	17.6% reported IPV during pregnancy, 95.2% of which reported psychological violence, 36.5% reported physical violence, and 1.6% reported sexual violence during pregnancy; multiple logistic regression and multiple linear regression showed that antenatal depressive symptoms are highly associated with IPV during pregnancy	The impacts of IPV on this particular population are extremely significant, and it is important that nurses and other healthcare professionals screen for these instances in both gestational and postpartum periods.	With many studies like this one, IPV can be underestimated due to fear or embarrassment by the women interviewed. Also, a screening instrument for antenatal depressive symptoms was used therefore the symptoms may have been overestimated.
15 Jacob, K., Nongrum, R., Thomas, E., & Lionel, J. (2014). Domestic violence as a risk factor for maternal depression and neonatal outcomes: A hospital-based cohort study. *Indian Journal of Psychological Medicine, 36*(2), 179-181. doi:10.4103/0253-7176.130989	Purpose statement: To follow up on a cohort study and further investigate the effects of domestic	Setting: Obstetrics outpatient department in Tamil Nadu, India Sampling	Design: Cohort design Level of Evidence: 4	132 women were followed up with after their deliveries; domestic violence was found to be associated with antenatal and postnatal depression, spouse's insistence on a baby boy, medical	The results of this study are a call for routine screening during the antenatal period. It is also a call to	Sample size was relatively small.

	violence on the mom and baby. Research question: What are the effects of domestic violence on maternal and neonatal outcomes?	method: Women between 24 and 36 weeks gestation were recruited from the obstetrics department and were assessed and followed up until delivery. Sample size: 150 pregnant women		complications during pregnancy, preterm delivery, and LBW	develop appropriate interventions for prevention.	
16 Mann, J.R., Mannan, J., Quiñones, L.A., Palmer, A.A., & Torres, M. (2010). Religion, Spirituality, Social Support, and Perceived Stress in Pregnant and Postpartum Hispanic Women. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*. 39(6). 645-657. doi:10.1111/j.1552-6909.2010.01188.x.	Purpose statement: To identify the relationship between religious, spiritual, and spousal support and stress in the antenatal and postpartum woman. Research question: Is there an association between perceived stress and religious, spiritual, spousal support in pregnant and postpartum Hispanic women?	Setting: Publicly funded hospital in urban California. Sampling method: Patients who came for prenatal care, postpartum care, or first infant visit were recruited for the study. Sample size: 248 pregnant and postpartum Hispanic women (ages 18-45)	Design: Cross-sectional study, non-experimental, correlational Level of Evidence: 4	Religiousness/spirituality was significantly associated with increased negative experiences of stress in women who chose English language instruments, while there was no relationship for women who selected Spanish language instruments; social support and greater relationship quality with a significant other were highly associated with reduced perceived stress in Spanish and English reading women	Nurses and other professionals must be aware of the relationship quality, not only focusing on IPV but also the quality of the relationship in general. They should be alert of the signs of psychological stress among these women.	The questions that the participants were asked were only directed towards Mexican American pregnant women, but it may have been beneficial to identify women from other Hispanic cultures who could have benefitted from this study.
17. Shamu, S., Abrahams, N., Temmerman, M., & Zarowsky, C. (2013). Opportunities and obstacles to screening pregnant women for intimate partner violence during antenatal care in Zimbabwe. *Culture, Health & Sexuality*, *15*(5), 511-524. doi:10.1080/13691058.2012.759393	Purpose statement: To explore and discuss the structural and cultural realities of developing countries that impact IPV interventions. Research question: How do the settings of low income clinics impact the	Setting: six public antenatal care clinics in low income residential areas of Harare, Zimbabwe Sampling method: purposive sampling; invited all the women in the clinic if they were less than	Design: qualitative study Level of Evidence: 6	Identifying and responding to IPV is impaired by inadequate human, financial, and infrastructural resources and poor support of gender-based violence training for midwives. Also, some midwives didn't consider IPV to be an issue worth reporting or intervening in.	Sensitised midwives should respond to indicators of violence and help the abused woman in culturally sensitive ways.	Small sample size; further research needs to be conducted in order to understand the non-health system obstacles to IPV interventions; the study did not look at women's experiences with midwives in detail, which

	interventions provided to women suffering from IPV?	10 and randomly invited women if there were greater than 10 in the clinic Sample size: 64				results in not fully understanding the relationship between the client and the provider
18 Taillieu, T. L., Brownridge, D. A., Tyler, K. A., Chan, K. L., Tiwari, A., & Santos, S. C. (2015, November 28). Pregnancy and Intimate Partner Violence in Canada: A Comparison of Victims Who Were and Were Not Abused During Pregnancy. *Journal of Family Violence, 31*(5), 567-579. doi:10.1007/s10896-015-9789-4	Purpose statement: To identify risk factors and differences in post-violence health between women who experienced violence during pregnancy and women who experienced violence outside of pregnancy. Research question: Is there a difference in risk factors, severity, and post-violence health effects between women who were abused during pregnancy and women abused outside of pregnancy?	Setting: 10 provinces of Canada Sampling method: Data on non-pregnant women was obtained from a 2009 study in Canada. Data from the subsample consisted of women who experienced some form of IPV in the 5 years preceding the survey. Sample size: Not specifically outlined. Data was taken from the 2009 General Social Survey on Victimization and specific population numbers were not detailed nor explained.	Design: Cross-sectional study, non-experimental Level of Evidence: 4	Compared to women who were abused outside of pregnancy, pregnant women were more likely to be more severely abused. Also, pregnant women who were unemployed, unmarried, and/or living in a rural area were more susceptible to IPV. Pregnant women who experienced IPV were more at risk for physical injuries, altered psyche, a need to take time from everyday activities, and having stayed in bed all day or most of the day.	Universal screening for IPV should be implemented in practice. Not only should IPV be screened and assessed for but also relationship status and quality.	Data was collected only from household with landlines, data was collected retrospectively, and data was only collected on women with previous or current cohabiting partners which would exclude dating relationships. Also information like prenatal care and intention of pregnancy was not available.
19 Cripe, S. M., Sanchez, S. E., Sanchez, E., Quintanilla, B. A., Alarcon, C. H., Gelaye, B., & Williams, M. A. (2010). Intimate Partner Violence During Pregnancy: A Pilot Intervention Program in Lima, Peru. *Journal of Interpersonal Violence, 25*(11), 2054-2076. doi:10.1177/0886260509354517	Purpose statement: To determine the effects of standard care, as well as interventions aimed towards this population, on abused pregnant women.	Setting: Instituto Nacional Materno Perinatal (INMP), Lima, Perú Sampling method: Prenatal care patients were screened for	Design: Randomized, two-arm trial Level of Evidence: 2	Women who were offered the empowerment intervention were more likely to hide money for escape, confide in others, establish code words with family and friends, among other things. There was no strong relationship between the intervention and overall health or further adoption of safe behaviors.	Empowerment interventions are important for abused women because they can help the women gain better control of their lives and reduce the risk of further abuse. It's also	The empowerment intervention does not fit all types of abused women. Also, the resources offered with the empowerment intervention may not be available in all

	Research question: Does this empowerment intervention have a positive effect on abused pregnant women?	IPV, between the ages of 18 and 45 were chosen. Sample size: 220			important to remember that not one intervention plan fits all, and women may deal with abuse differently depending on their culture and practices.	communities (counseling and education, for example).
20 Krishnan, S., Subbiah, K., Chandra, P., & Srinivasan, K. (2012). Minimizing risks and monitoring safety of an antenatal care intervention to mitigate domestic violence among young Indian women: The Dil Mil trial. *BioMed Central Public Health.* 12(943). http://www.biomedcentral.com/1471-2458/12/943	Purpose statement: To determine if the empowerment-based intervention, *Dil Mil*, helps to aid cases of domestic violence and in turn reduce the risk of adverse health outcomes.	Setting: Bengaluru, India Sampling method: Pregnant women 18-30 years old in their first or second trimester were recruited from antenatal appointments. Sample size: 144 dyads of daughters (Dil) and their mothers-in-law (Mil).	Design: Randomized controlled trial Level of Evidence: 2	The empowerment-based intervention that includes the daughter and mother-in-law dyad is shown to guide safety planning and monitoring of domestic violence.	Interventions such as this one play an important role in the evidence toward IPV prevention. Nurses and other professionals must be made aware that these interventions can help reduce the risk of adverse outcomes and further violence.	This trial has a small sample size. Also, only one phase of this trial has been completed, making it difficult to solidify the results.