

**EXPLORING WOMEN'S PERCEPTIONS OF THEIR BIRTH OUTCOMES:
INTIMATE PARTNER VIOLENCE DURING PREGNANCY**

by

Elana Rachel Barkowitz

BS, Slippery Rock University, 2009

Submitted to the Graduate Faculty of
the Graduate School of Public Health in partial fulfillment
of the requirements for the degree of
Master of Public Health

University of Pittsburgh

2011

UNIVERSITY OF PITTSBURGH
GRADUATE SCHOOL OF PUBLIC HEALTH

This thesis was presented

by

Elana Rachel Barkowitz

It was defended on

April 6, 2011

and approved by

Thesis Committee Chair:

Martha Ann Terry, PhD

Assistant Professor, Director of the Master of Public Health Program, Behavioral and Community Health Sciences, Graduate School of Public Health, University of Pittsburgh

Committee Members:

Rachel Fusco, PhD, MSSW

Assistant Professor, School of Social Work, University of Pittsburgh

Jessica Burke, PhD, MHS

Assistant Professor, Behavioral and Community Health Sciences, Graduate School of Public Health, University of Pittsburgh

Tammy Thomas, MPH, MSW

Coordinator of Community Programs, Behavioral and Community Health Sciences, Graduate School of Public Health, University of Pittsburgh

Copyright © by Elana Rachel Barkowitz

2011

EXPLORING WOMEN'S PERCEPTIONS OF THEIR BIRTH OUTCOMES: INTIMATE PARTNER VIOLENCE DURING PREGNANCY

Elana Rachel Barkowitz, MPH

University of Pittsburgh, 2011

Background: Over 300,000 pregnant women experience intimate partner violence during the course of their pregnancies each year, exposing both the mother and fetus to physical and emotional harm. Though many programs are available to victims of intimate partner violence, there continues to be a lack of effective interventions available to women who are pregnant while experiencing abuse. **Objective:** To identify current research and programming as well as explore the perceptions of women who have experienced abuse during their pregnancies. **Methods:** Semi-structured interviews were conducted with two women between December 2010 and February 2011. **Results:** Three topics emerged in both interviews conducted. First, the women interviewed articulated feeling trapped in having to stay with their abusers due to their pregnancies. Second, financial support emerged as a reason why participants stayed with their abusers. Finally, both participants expressed that they wish they had known of people to talk to about their abuse during the course of their pregnancies. **Conclusions:** There appears to be a need for consistent and effective screening of intimate partner violence during prenatal appointments. In addition, there should be an increase in the development and implementation of programs that focus on providing individual support and placing emphasis on social support. **Public Health Significance:** Intimate partner violence continues to be the leading cause of injury and death in women of childbearing age in the United States. Paired with pregnancy, the risks of negative health outcomes to both mother and fetus are high and the repercussions include

short and long term injury, emotional distress, and even death. Economically, costs of the harm caused by intimate partner violence during pregnancy exceed close to six billion dollars each year. Intimate partner violence during pregnancy is of major public health concern and continuing to address it in research and the development of interventions is necessary in mitigating the impact that it makes on the lives of those who experience it.

TABLE OF CONTENTS

PREFACE.....	VIII
1.0 INTRODUCTION.....	1
2.0 BACKGROUND	5
2.1 INTIMATE PARTNER VIOLENCE.....	5
2.1.1 STATISTICS.....	6
2.1.2 IPV REPERCUSSIONS	7
2.2 NEGATIVE PREGNANCY AND BIRTH OUTCOMES.....	10
2.3 INTIMATE PARTNER VIOLENCE AND PREGNANCY	13
2.3.1 STATISTICS.....	14
2.3.2 EFFECTS.....	15
2.3.3 SCREENING.....	19
2.3.4 PLANNING: THEORIES AND MODELS	20
3.0 METHODOLOGY.....	22
3.1 SAMPLE AND RECRUITMENT.....	22
3.2 DATA ANALYSIS.....	25
4.0 RESULTS	26
5.0 DISCUSSION	32
6.0 CONCLUSION.....	35

6.1	LIMITATIONS.....	36
6.2	RECOMMENDATIONS FOR FURTHER PROGRAMMING & RESEARCH.....	38
6.3	CLOSING.....	42
	APPENDIX A : INTERVIEW GUIDE.....	43
	APPENDIX B : INSTITUTIONAL REVIEW BOARD APPROVAL LETTER.....	44
	APPENDIX C : RECRUITMENT POSTER.....	45
	APPENDIX D : INFORMED CONSENT SCRIPT	46
	APPENDIX E : QUESTIONNAIRE.....	48
	BIBLIOGRAPHY.....	49

PREFACE

Over the course of my academic career, I have had the opportunity to work with a group of incredible people. I would first like to thank the staff and residents of Womansplace. Without the support and extensive knowledge of the staff, I would not have had the amazing practicum experience that I did, and it is because of their willingness to help me with my thesis that I was able to return to conduct my research. Of course, I am indebted to the women who so kindly and openly shared their stories with me. The women I had the honor of interviewing are some of the strongest people I have ever met. I wish them only the best of luck and happiness in their lives.

I would also like to thank my thesis committee. I would have felt lost in this process without their guidance, support, and expertise. I am forever grateful to my committee members; they are a group of women I admire and their participation in this process meant the world to me.

Finally, I would like to show appreciation to everyone whom I have had the pleasure of knowing in the Behavioral and Community Health Sciences department at the Graduate School of Public Health. My professors and peers have played a major role in making my time at GSPH two of the best years of my life. I will always be grateful for the excellent education I have received in a learning environment overflowing with warmth and support. I would also like to thank the BCHS department for nominating me for the Campaign for the Next 5000 Alumni partial scholarship. It aided tremendously in my being able to conduct my research.

1.0 INTRODUCTION

Pregnancy is a time in a woman's life that carries a variety of natural stressors. Though many women may feel joy and happiness about having a child, the physical stress on the body as well as the emotional stress of preparing for more responsibility and a new addition to the family can be extremely taxing on the pregnant mother. It is for these reasons that quality prenatal care is encouraged during the duration of a woman's pregnancy and that she is in an environment where she can choose to adhere to healthy behaviors. Though some adverse pregnancy and birth outcomes may result with no apparent cause, it is agreed the better the care that the woman receives during pregnancy and the healthier she is, the more likely she is to have a positive pregnancy experience.

Intimate partner violence (IPV) is defined by the Centers for Disease Control and Prevention (CDC) as repeated acts that can include "physical, sexual, or psychological harm by a current or former partner or spouse" (Saltzman, Fanslow, McMahon, & Shelley, 2002, p. 11). At least 4.8 million incidents of IPV occur each year in women ages 18 years or older (CDC Fact Sheet, 2011), and over 1400 women die annually due to the injuries sustained by acts of IPV (Wilson and Websdale, 2006).

Though IPV can affect women of any age, a literature review by Chambliss (2008) revealed that some studies show that women are at an increased risk of experiencing IPV during their childbearing years. When a woman experiences IPV during her pregnancy, a new set of

complex issues is introduced, both for her health and the health of the fetus, as well as the general dynamics of her life. Women who have experienced IPV during pregnancy are at increased risk of drug and alcohol abuse and have higher rates of depression and Posttraumatic Stress Disorder (PTSD) (Zlotnick, Cadenza, & Parker, 2010). Negative consequences to the fetus resulting from IPV during pregnancy include preterm birth, low birth weight, and fetal demise (Bailey, 2010). Hospital stays are longer for children who are born prematurely or with other health issues such as cerebral palsy, resulting in an increased cost of hospital and insurance expenditures (Xu, Grigorescu, Sifter, Lori, & Ransom, 2009). Families, where IPV is present, tend to experience more cases of housing instability and unsteady family dynamics (Chambliss, 2008). IPV is a public health concern on its own, as are the risks of adverse pregnancy outcomes, but when the two issues are coupled, a myriad of complications can arise.

It is important for public health professionals to be aware of how abuse during pregnancy affects mortality, morbidity, and the overall quality of life of both mother and fetus. By understanding the health implications, public health professionals and other health care providers may better be able to develop and implement programs to help women who are experiencing abuse during their pregnancies, as well as to prevent the cycle of abuse. The Theory of Planned Behavior (TPB) is an excellent model to use in the development of programs targeted toward women who are in an abusive relationship while pregnant. The TPB focuses on behaviors, attitudes, and the control that an individual perceives to have in the changing of behavior makes it ideal for intervening in a situation where a woman may otherwise not feel as though she has a lot of control (National Cancer Institute, 2005). The Social Cognitive Theory (SCT) could also be useful in planning programs because it uses three factors to determine the likelihood of behavior change: self-efficacy, goals, and expectations of outcomes (National Cancer Institute,

2005). It is important for pregnant women in abusive situations to feel empowered to make changes that benefit the health of both her and her fetus, so this makes the SCT another model useful in the development of successful programs and interventions. A third model that would be appropriate to use in the development of programs is the Social Ecological Model (SEM). The SEM identifies relationships, influences, and conflicts at the individual, interpersonal, community, and societal levels, and understanding the interplay of each stage to better develop appropriate programs makes the SEM another effective planning tool (Dahlberg and Krug, 2002). Finally, the Transtheoretical Model (TM) assesses the readiness of an individual to change a behavior and categorizes the stages of change as: precontemplation, contemplation, preparation, action, and maintenance (National Cancer Institute, 2005). A study completed by Burke, Denison, Gielen, McDonnell, & O'Campo (2004) showed that women who are in abusive relationships do use the TM when deciding to leave their abusers. This reinforces the idea that changing behaviors – in this case, leaving an abusive situation – is a process, rather than a one-time decision. Therefore, continued utilization of the TM in the development of programs for women experiencing IPV during pregnancy is ideal.

The purpose of this paper is to explore the relationship of IPV and its effect on pregnancy and birth outcomes. Initially, the separate issues of IPV and negative birth outcomes will be introduced, followed by a review of literature that describes the relationship of IPV and negative birth outcomes. Next, the methodology of the study is described. Two open-ended interviews were held with two women who were abused during their pregnancies, each lasting from ten to 30 minutes long. Both participants also filled out a close-ended questionnaire. The data collected in the interviews are reviewed and discussed. Some common themes gathered from that data include that both participants reported staying with their abusers during the duration of their

pregnancies for financial support, both women did not get screened for IPV during their prenatal visits, and both women mentioned that they were unaware of resources in the Pittsburgh area for help during the duration of their pregnancies. The research faced many issues with recruiting participants; this and other limitations of the study are discussed. Finally, suggestions for further research and programming, such as focusing on the development of programs for children, are provided.

2.0 BACKGROUND

It is important to understand the complicated nature of IPV and negative pregnancy and birth outcomes exclusively before examining their difficult relationship when combined. In this section, relevant literature is reviewed to provide current statistics and repercussions, as well as identify programs that have been put into place to mitigate the problems caused by IPV during pregnancy.

2.1 INTIMATE PARTNER VIOLENCE

IPV may be physical, emotional, or sexual. Physical violence is defined as using the force of one's body to purposely cause injury to or death of another. Biting, throwing, shoving, choking, slapping, and use of a weapon are examples of physical violence. Emotional or psychological violence may include making verbal threats, harassing, taking control of another's activities, and using finances to control another person. In addition, stalking and threats of physical or sexual violence fall under the definition of emotional or psychological violence. Sexual violence has been characterized in a multitude of ways. Forcing someone to engage in a sexual act, withholding sex as a leverage point, having sex with someone who is impaired and unable to make a conscious decision about engaging in a sexual act, and committing rough acts during sex all fit into the realm of sexual violence. The many repercussions of IPV will be discussed in a

later section. It is important to first understand the prevalence and rates of IPV in the United States.

2.1.1 STATISTICS

IPV makes up 20 percent of all types of violent crime in the United States (Bailey, 2010). Every state in the U.S. considers IPV to be a punishable act by law (Mariani, 1996). Though both men and women are affected by IPV, women are six times as likely as men to be victims; and though women make up just over half of the population of the United States, they make up almost three quarters of those who experience IPV (Chambliss, 2008). Moreover, men are more likely to be victimized by strangers while women are more likely to be victimized by intimate partners, and three quarters of spouses who are murdered each year are women (Chambliss, 2008). For these reasons, this paper focuses on the prevalence of IPV in women. In addition, though IPV does not discriminate with regard to countries and cultures, the focus of this paper is on women in the United States.

The United States Department of Justice reports that over a lifetime, over 50 percent of women will have at one point experienced some form of IPV (Bachman and Saltzman, 1995). According to a review of literature compiled by Burke, Lee, and O'Campo (2008), approximately three million women in the United States are affected by IPV each year, and at least 1400 deaths each year result from IPV (Wilson and Websdale, 2006). It should be noted that this is a conservative estimate because IPV is often under-reported. Many women who experience IPV do not necessarily view it as an act that should be reported to authorities, and this can be attributed to their perception of abuse as normal. However, though some women may recognize that being abused is harmful and dangerous to their health, they may feel that their

lives will be put in further danger if they report their partners to the police. Therefore, researchers and health care providers often assume incidence rates of IPV are inaccurate.

While abuse affects women of all backgrounds and walks of life, some women appear to be at higher risk for IPV. Studies show a link between higher rates of IPV among women of lower socioeconomic status who have not received a high level of education (Janssen, Holt, Sugg, Emanuel, Crtichlow, & Henderson, 2003; Bailey, 2010; Shamu, Abrahams, Temmerman, Musekiwa, & Zarowsky, 2011). African-American women also experience higher rates of IPV than Caucasians and Hispanics in the United States (Chambliss, 2008). According to Rennsion and Walkmans (2000), African-American women experience IPV at rates 35 percent higher than those of their Caucasian and Hispanic counterparts.

It is important to note that abuse may come from family members such as parents or siblings. Family violence, which accounted for 11 percent of all violence between the years of 1998 to 2002, may include child physical and sexual abuse, neglect, maltreatment, and elder abuse (Durose, Harlow, Langan, Motivans, Rantala, & Smith, 2005). Victims of family violence tend to be Caucasian females and between the ages of 25 and 54 (Durose et al., 2005). Forty percent of cases of family violence between the years of 1998 to 2002 were not reported to the police, and most victims cited the reason for that as the issue being personal or private (Durose et al, 2005).

2.1.2 IPV REPERCUSSIONS

There are many direct and indirect costs of IPV or family violence. For instance, injuries from IPV total more than those from motor vehicle accidents, muggings, and rapes combined (Chambliss, 2008). It is estimated that treatment of IPV victims costs the United States billions

of dollars each year (Bailey, 2010). The Department of Health and Human Services (DHHS) and the CDC estimate that a total of 5.8 billion dollars a year is spent treating medical consequences resulting from IPV, with 4.1 billion of those dollars spent on direct medical care (HHS and CDC, 2003). From a purely financial standpoint, IPV is an economic problem. For instance, time missed from work is higher for women who experience IPV. One study has shown that victims of IPV lose, on average, more than 40 days of work per year, and employers lose billions of dollars annually due to the lost productivity of victims of IPV (Chambliss, 2008).

In addition, IPV alone contributes to many negative health outcomes (Rennison and Welchans, 2000; Kiely, El-Mohandes, El-Khorazaty, & Gantz, 2010). However, when IPV is paired with negative health behaviors or unstable situations, the consequences can be even more severe. This section explores the impact of IPV paired with issues such as alcohol abuse, housing instability, family dynamics, and other negative health outcomes.

Alcohol abuse is often prevalent among both aggressors and victims in abusive relationships. Some data show that 45 percent of men and 20 percent of women are under the influence of alcohol when IPV occurs (Chambliss, 2008). According to a study by Roberts, McLaughlin, Conron, and Koenen (2011), men and women who were not alcohol abusers were two and a half to three times less likely to perpetrate IPV than men and women who were abusers. Many times, victims will use alcohol as a means of “escaping” their situations, while the abuser is at an increased risk of causing more serious injury while under the influence of alcohol (Chambliss, 2008).

Due to the instability of abusive relationships, often times issues of housing security arise. Data from one study show that living in a neighborhood with higher rates of violence can increase the risk of IPV occurring in the household (Chambliss, 2008).

Women who have experienced IPV are nine times more likely to be at risk for a mood or anxiety disorder than non-victimized women (Bailey, 2010). Data from a study ran by Bonomi, Anderson, Reid, Rivara, Carrell, and Thompson (2009) show that women who have been abused are consistently at a double to triple risk for the development of psychosocial/mental disorders compared to women who are not abused. The risk is high but unsurprising due to the emotional insecurity and stress that comes from being in an abusive relationship.

Victims of IPV are at high risk for sustaining multiple injuries and contracting diseases from their abusers. Experiencing IPV increases the risk of contracting HIV and other sexually transmitted infections (STIs) due to the injuries incurred during forced intercourse, as well as the difficulty some women may have in discussing safer sex practices with an abusive partner (Chambliss, 2008). In a review of literature by Gielen, Ghandour, Burke, Mahoney, McDonnell, and O'Campo (2007), most studies examined showed that both HIV-positive and HIV-negative women experience similar rates of abuse, though the severity of abuse and how often it happens tends to be higher in HIV-positive women. The authors recognize that there is a continued need for research looking at the intersection of IPV and HIV. Injuries that may be sustained include chronic pain, headaches, stomach problems, and injuries to the cervix (CDC Fact Sheet, 2011). Results from a study by McLean, Roberts, White, and Paul (2011) show that women were three times more likely to sustain injuries from penile-vaginal intercourse when it was non-consensual as opposed to women who engaged in consensual intercourse. Women in abusive relationships may be exposed to more violence from their abusers if they negotiate use of prophylactics during sexual intercourse (Humphreys, 2011). For many abusers, the request to wear condoms may be a valid reason to verbally or physically harm their partners. Women who do contract an STI from an abusive partner may be isolated from family and friends because of the stigma attached to

having a STI (Sharps, Laughton, & Gangrened, 2007). This outcome is dangerous for women in abusive relationships because the lack of social support could be detrimental in any plan to leave the relationship.

Women are not the only victims of IPV. According to some studies, every year more than three million children observe IPV in their homes (Chambliss, 2008; Taft, Small, Hegarty, Lumley, Watson, & Gold, 2009). Exposure to IPV is the strongest predictor of physical child abuse, and in over 50 percent of homes where IPV occurs, child abuse co-occurs (Chambliss, 2008). Children under the age of five who live in an abusive home make up 75 percent of US maltreatment fatalities (Taft et al., 2009). The health of children has been found to be compromised when they are abused or witness abuse. In addition, children who grow up in homes with IPV are more likely than children who are not exposed to IPV to become adolescent parents as well as to become abusers themselves as adults (Chambliss, 2008).

Mothers who experience IPV are also much more likely to have children with more severe behavioral and temperament difficulties (Burke et al., 2008). According to a study done by Durand, Schraiber, Franca-Junior, and Barros (2011), children who were exposed to IPV in the home are two times as likely to develop three or more behavioral issues such as aggression toward other children than children who do not experience IPV In the home.

2.2 NEGATIVE PREGNANCY AND BIRTH OUTCOMES

A mother's healthy pregnancy and uncomplicated delivery are an ideal start to an infant's life. The pregnant woman herself, the people in her life, and health care providers need to take steps to help ensure that she is able to take the best care of her body during her pregnancy. However,

even with the best of care, a woman can experience adverse pregnancy and birth outcomes. In this section, some of these negative outcomes, such as preterm births and low birth weight infants, and the determinants are explored. Preterm births and low birth weight are the leading causes of neonatal morbidity and mortality (Bailey, 2010). In addition, according to a review of literature done by Bailey (2010), an infant's gestational age and birth weight are accurate predictors of developmental outcomes. Understanding the complexity and implications of negative pregnancy and birth outcomes will contribute to understanding the public health significance of decreasing rates of IPV to further reduce the occurrence of these outcomes.

In the United States, preterm birth is defined as a delivery that occurs before 37 weeks of gestational age; a full-term pregnancy is considered to be between 37 and 40 weeks of gestation (Bailey, 2010). It occurs in about 10 to 12 percent of births (one in eight) in the United States each year (Katz, Blake, Milligan, Sharps, White, & Rodan, 2008). Premature infants are at a higher risk of having long-term health issues and hospitalizations (Xu et al., 2009). Therefore, preventing premature births is a public health issue and an economic issue, as infants born prematurely tend to need a longer stay in the hospital. In 2005, over 26 billion dollars were spent on issues relating to preterm births (Behrman and Butler, 2007). Some repercussions of preterm births include motor and language delays, as well as academic and behavioral difficulties (Bailey, 2010). For example, the risk of developing cerebral palsy, a condition that affects the brain's ability to control movement, increases dramatically the earlier an infant is born. Whereas full-term infants have rates of cerebral palsy of 1.4 out of 1000 live births, infants born before 28 weeks of gestation have rates of 80 out of 1000 live births (Behrman and Butler, 2007). Mental retardation (MR) is also more likely to occur in infants born prematurely. MR, or the development of intellectual disabilities, may be caused by injury, disease, or a brain anomaly,

and may lead to complications such as an individual's inability to care for his or herself as well as having difficulties interacting with others. Infants born before 32 weeks of gestation are up to seven times more likely to have MR (Behrman and Butler, 2007). In terms of behavior outcomes, in a study reviewed by Bhutto, Cleves, Casey, Cradock, and Anand (2002), data show that nine to 15 percent of the premature infants studied were diagnosed with attention deficit hyperactivity disorder (ADHD) compared to only two percent of the infants who were born full-term. In addition, infants born prematurely have an increased risk of sudden infant death syndrome (SIDS) (Bailey, 2010). While many causes of premature births are unknown, many of the known causes are due to lifestyle habits such as smoking, and environmental factors such as a lack of access to prenatal care (Ananth and Vintzileos, 2006).

Babies who are born weighing less than 2,500 grams (five and a half pounds) are considered to be of low birth weight (LBW), and those weighing less than 1,500 grams (less than three and half pounds) are considered very low birth weight (VLBW) (Bailey, 2010). Though LBW can coincide with preterm births, 40 percent of low birth weight infants are born after 37 weeks of gestational age (Bailey, 2010). Similar to preterm births, many LBW infants may later experience deficits in motor skills, academia, language, and behavioral proficiency (Bailey, 2010; Sharps et al., 2007). In addition, LBW and VLBW infants are more susceptible to infections such as bronchopulmonary dysplasia, which could lead to health issues later on in their lives (Eichenwald and Stark, 2008; Bhutto, Lassi, Blanc, Donnay, 2010). Bronchopulmonary dysplasia, for example, may lead to delayed neurodevelopment (Eichenwald and Stark, 2008).

Fetal demise is the death of a fetus during any stage of the duration of the pregnancy. This may occur as a miscarriage, a spontaneous abortion, or a stillborn fetus. In 2005, over

25,000 fetal deaths at 20 weeks of gestational age were reported in the United States, only 3,000 fewer deaths than infant deaths reported (MacDorman and Kirmeyer, 2009). Currently, the fetal mortality rate in the United States is six fetal deaths at 20 weeks of gestational age for every 1,000 live births (MacDorman and Kirmeyer, 2009). Fetal death may result from genetic anomalies, maternal health behavior, and unknown causes.

Maternal trauma is a broad blanket term used to define any event (physical or emotional) that may put a woman in distress during her pregnancy. Trauma is the leading cause of maternal death (Sharps et al., 2007). Experiencing maternal trauma also puts the fetus at risk for adverse birth outcomes. Certain injuries related to maternal trauma may include placental abruption, which is the second leading cause of fetal mortality, uterine rupture, and pelvic fracture (Cusick and Tibbles, 2007). Reciprocally, adverse pregnancy outcomes such as miscarriages and preterm births have an impact on the overall physical and mental health of mothers (Bhutta et al., 2010). A woman may grieve for the loss of her child or not having the birthing experience she wanted or expected, and the grieving process can take a large toll on the body. Currently, trauma complicates about five percent of pregnancies in the United States (Cusick and Tables, 2007). Besides trauma that may occur during the majority of the pregnancy, an additional type of trauma presents at birth when delivering a child who is not ideally healthy. This is stressful for both the mother and the rest of her family.

2.3 INTIMATE PARTNER VIOLENCE AND PREGNANCY

Some studies (Silverman, Decker, Reed, & Raj, 2006; Sharps et al., 2007; Rosen, Seng, Dolman, & Mallinger; 2007; Campbell, Torres, Ryan, King, Campbell, Stallings, & Fuchs, 1999) have

identified an association between IPV and negative pregnancy outcomes. Annually, over 300,000 women in the United States experience IPV during their pregnancies (Bailey, 2010; Rosen et al., 2007). The effects of abuse during pregnancy can result in the negative pregnancy and birth outcomes discussed in the previous section. IPV can either directly influence pregnancy and birth outcomes, and also coexist with other factors such as smoking, weight gain, and access to prenatal care (Bailey, 2010; Bandar, Levitch, Ellis, Ball, Everett, & Geden, 2008).

2.3.1 STATISTICS

IPV is the leading cause of injury and death among women in the United States of childbearing age (Bailey, 2010). Researchers estimate that anywhere from one to 20 percent of women will experience IPV during at least one of their pregnancies, with ten percent of the reported violence being physical (Bailey, 2010; Sharps et al., 2007; Silverman et al., 2006; Taft et al., 2009).

Throughout the United States, various studies have shown that a significant number of homicides of pregnant women are completed by intimate partners; 36 percent in North Carolina (Parsons and Harper, 1999), 38 percent in Georgia (Dietz, Rocha, Thompson, Berg, & Griffin, 1998), and 17 percent in both Maryland and New York City (Cheng and Horon, 2010; Dannenberg, Carter, Lawson, Ashton, Dorman, & Graham, 1995).

Though some studies (Cook and Dickens, 2009; Rosen et al., 2007; Dunn and Oaths, 2004) suggest that being pregnant increases the risk of experiencing abuse, Cook and Dickens (2009) ask if the increased rate of IPV during pregnancy is related to detection of abuse at screenings during prenatal appointments. Unfortunately, rates of how prevalent IPV is during pregnancy have been difficult to accurately assess. IPV is assessed in a multitude of ways.

Because many evaluations are based on women self-reported accounts of abuse, large discrepancies among studies of the prevalence of abuse during pregnancy exist. A woman may not admit to being abused for many reasons, including fear for her life and the safety of the fetus, as well as self-perceived stigma surrounding what it means to be in an abusive relationship. Results of a study done by Hanson (2010) show that women who do not report being abused by their partners are also more likely to engage in negative health behaviors.

According to a review of literature done by Bailey (2010), single women may be up to four times more likely to experience IPV during their pregnancies than married women. Though African-American women experience higher general rates of IPV than Caucasian women, when it relates to pregnancy, the prevalence, severity, and homicide rates due to IPV among Caucasians are higher than among their African-American counterparts (Bailey, 2010).

2.3.2 EFFECTS

In this section, the consequences that can result from IPV during pregnancy will be discussed. The effects on both mother and child may be short-term, long lasting, or even fatal. When a pregnant woman experiences physical violence to her abdomen, it can lead to membrane ruptures, placental abruption, or a ruptured uterus (Bailey, 2010). Any of these medical consequences could result in premature labor and delivery. Though it is important to keep in mind that negative health behaviors may directly lead to certain pregnancy and birth outcomes, police-reported data showed a significant association between IPV and birth weight after controlling for possibly confounding factors, such as maternal smoking and a lack of access to prenatal care (Lipsky, 2003). A study by Chambliss (2008) shows that IPV is one of the two

most common sources for maternal trauma, with complications of the labor and birth process being the other major sources of trauma.

Fetal demise may also be a result of physical trauma or the decision to have an abortion. According to Chambliss (2008), some cases of fetal demise due to trauma that fractured the fetal skull (or resulted in a death of a fetus) occur because the woman was a homicide victim of IPV. In many states, death of a fetus is considered a crime, which is separate from abortion, where the difference is that the decision to terminate the pregnancy is the mother's alone. Currently in the United States, 38 states have laws that apply to fetal homicide, and 21 of those states extend those laws to a fetus in any stage of development (National Conference of State Legislatures, 2010).

Chambliss (2008) reviewed literature that showed an increased rate of unintended pregnancies in relationships where sexual violence occurs. As a result of unintended pregnancies, many women experiencing IPV terminate the pregnancy and are less likely to confide to their partners that they have had an abortion (Chambliss, 2008). In a study done by Ely and Otis (2011), 15 percent of adult abortion patients reported having been physically or emotionally abused by their partners. In a literature review of other studies completed on abortion patients who are victims of IPV, women who did not disclose to their intimate partner that they were having an abortion were also more likely to be in an abusive relationship (Ely and Otis, 2011). For the majority of the cases, abortion is an elective procedure, and in a study by Gander, Moore, Michielutte, and Parsons (1998), it was found that over 16 percent of the abortion patients studied who self-reported being in an abusive relationship cited their relationship issues as the sole or primary reason for obtaining an abortion. This result was the only significant difference in the reasons given for obtaining their abortions by both abused and non-abused women. By not

involving their partners in the decision to parent, place a child for adoption, or have an abortion, women in abusive situations may be protecting themselves from further harm.

One study found that the general health of an infant was directly related to the amount of physical abuse experienced by the mother (Burke et al., 2008). It was found that the more severely a woman is physically abused during her pregnancy, the more at risk the fetus is for harm.

Many negative health behaviors that on their own may contribute to negative pregnancy and birth outcomes, such as preterm delivery and low birth weight infants, tend to be exacerbated in women who are experiencing IPV during pregnancy (Bailey, 2010). Some of these behaviors include smoking, drinking, and substance abuse during pregnancy and receiving late or inadequate prenatal care (Coker, Sanderson, and Dong, 2004; Behrman and Butler, 2007). Women who are being abused during their pregnancies are twice as likely than their non-abused counterparts to begin care in their third trimester of pregnancy (Bailey, 2010). In addition, when a woman does not receive adequate prenatal care, there is an increased risk of perinatal mortality (Bhutta et al., 2010).

In a study (Bandar et al., 2008) looking at the compounding effects of smoking during a pregnancy when a woman was experiencing IPV, qualitative data collected showed that while many of the women strived to take good care of their bodies during their pregnancies, they tended to experience more external stressors than women who are not in abusive relationships while pregnant. Women may take up smoking or smoke more than usual while in abusive relationships as a method of stress relief and as an escape from their abusers. Smoking increases the risk of developing a multitude of diseases and further compromises the health of victims of IPV.

Another serious negative health consequence that can result from IPV during pregnancy is a lack of appropriate weight gain in the mother (Bailey, 2010). An inappropriate amount of weight gain during pregnancy is sometimes a sign of inadequate nutrition, which can lead to many adverse birth outcomes, such as delivering LBW infants (Behrman and Butler, 2007). Women who are abused during pregnancy are more than three times as likely as their non-abused counterparts to deliver an infant prematurely, and this is often contributed to inadequate weight gain by the mother (Sharps et al., 2007).

Other negative physical health outcomes that may result from IPV during pregnancy are hypertension, vaginal bleeding, vomiting, and kidney or urinary tract infections (Mitchell, 2004). The risk of these adverse outcomes is significantly higher for abused women compared to women who are not abused during their pregnancies (Sharps et al., 2007).

Study findings from Rosen et al. (2007) report that women who delivered LBW infants and had experienced abuse during their pregnancies had significantly high rates of PTSD and depression. The mental health of a woman who has been abused during her pregnancy is compromised and may be further affected if the child is not healthy when delivered. An intervention by Zlotnick et al. (2010) attempting to reduce rates of PTSD and depression in women being abused during their pregnancies was found to not make a significant difference. The researchers agreed that not controlling for history of prior abuse might have contributed to the lack of significant results of their intervention.

Findings from a study by Silverman et al. (2006) report that experiencing IPV prior to pregnancy may increase the risk of compromised physical and mental health for the mother once she is pregnant. This is due to women attempting to leave the relationship once finding out of

their pregnancies, but when a victim of abuse tries to leave, that is the most dangerous time for her health; the chances of further injury or homicide increase.

One study showed that women who reported abuse during their pregnancies were more likely to have more pregnancies in the future than their non-abused counterparts (Coker et al., 2004). A speculation is that if women do have trouble negotiating condom use with their partners or they are unable to access or effectively use hormonal methods of birth control, they may become pregnant more often. In addition, women who experience sexual abuse are forced to engage in sexual acts, which increases their chances of becoming pregnant (CDC Fact Sheet, 2011).

2.3.3 SCREENING

To identify cases of IPV, health care providers are currently using a variety of screening tools. The Abuse Assessment Screen (AAS) is a five-item evaluation commonly used because of its known reliability and validity (Bailey, 2010). Another tool that is used is the Woman Abuse Screening Tool (WAST), which is a seven-item assessment designed for use in family practices (Bailey, 2010). A review of literature done by Sharps et al. (2007) on maternal trauma and experience of abuse during pregnancy resulted in a recommendation that there needs to be more emphasis on screening for intimate partner violence during prenatal care visits. Sharps et al. (2007) note that prenatal visits are not typically rushed appointments, and physicians and nurses should take the time to assess for intimate partner violence. A review of literature by Campbell et al. (1999) showed that the most effective time to screen patients was during consecutive prenatal visits. Results from a recent study completed by Humphreys, Tsoh, Kohn, and Gerbert (2011) showed that a one-month intervention using interactive multimedia with pregnant victims of IPV

increased patient-provider communication, which led to higher rates of IPV disclosure to physicians. Though screening for IPV postpartum is important, it is often not done immediately after birth because of the short hospital stays (Campbell et al., 1999).

However, studies have been done that show that as few as 10 to 13 percent of physicians in the United States routinely screen their pregnant patients for IPV (Humphreys et al., 2011). Physicians report the lack of screening as being due to not having enough time, education, or resources (Gerbert, Caspers, Bronstone, Moe, & Abercrombie, 1999). In addition, physicians describe feeling frustrated when patients are unable or unwilling to change their living situations (Gerbert et al., 1999). When physicians perceive barriers to routinely screening for IPV during pregnancy, the process of identifying patients who are involved in abusive relationships and providing appropriate resources is hindered.

2.3.4 PLANNING: THEORIES AND MODELS

The Theory of Planned Behavior (TPB), Social Cognitive Theory (SCT), the Social Ecological Model (SEM), and the Transtheoretical Model (TM) are useful tools when developing programs for women who are experiencing IPV while pregnant. The TPB is helpful in determining how an individual intends on changing his or her behavior (National Cancer Institute, 2005). As it relates to IPV during pregnancy, though the woman herself is not in control of the abuse and may see that as normal behavior, it would be beneficial to develop programs focusing on increasing the self-perceived control that she is able to use in her situation.

The SCT puts emphasis on “psychological determinants of behavior, observational learning, environmental determinants of behavior, self-regulation, and moral disengagement”

(Glanz, Rimer, & Viswanath, 2008, p. 170). Building women's self-efficacy is important for the sake of empowerment. When women feel empowered to make healthy decisions for themselves, they will be much more likely to follow through with positive behavior changes such as leaving an abusive relationship.

The SEM focuses on combining the effects of individual, interpersonal, community, and societal factors when planning and implementing public health programs (Glanz et al., 2008). It allows public health professionals to both identify the complex relationship between the levels as well as recognize where best to intervene with a program (Dahlberg and Krug, 2002). With an issue such as IPV, it is important to consider a variety of levels when aiming to change behaviors. It would be beneficial to know how a woman views herself, her community, the relationship with her partner, and how she perceives IPV on a broader level in order to more effectively provide her with resources that will improve her health and well-being.

Finally, the TM is a beneficial planning theory because it reinforces that the act of leaving an abusive situation is a process (National Cancer Institute, 2005). Being aware of what stage of change an individual is in assists health care practitioners in providing appropriate interventions for individuals in each stage of change (Burke et al., 2004).

The CDC suggests the following four steps to address the issue of IPV: defining the problem, identifying risk and protective factors, developing and testing prevention strategies, and assuring widespread adoption (CDC Fact Sheet, 2011). Using this approach helps in identifying potential populations and where resources are needed most. Recognizing protective factors and prevention strategies help to mitigate the issue of IPV. Finally, having organizations and agencies adopt what the CDC suggests will further ensure that appropriate programs are being developed and implemented that will effectively reduce the harm and prevalence of IPV.

3.0 METHODOLOGY

The purpose of this study is to explore women's perceptions of IPV as it related to their experiences during their pregnancies and to identify knowledge of current research and programming in the Pittsburgh area. By better understanding what women encounter and what would have helped them during their pregnancies, public health professionals may have a more accurate comprehension of what services should be available for pregnant women who are concurrently experiencing IPV. In order to collect information on these issues, an interview guide (see Appendix A) was developed by the researcher and a mentor. The study was conducted between December of 2010 and March of 2011 using an open-ended interview and questionnaire. The researcher conducted all interviews. The University of Pittsburgh's Institutional Review Board approved this qualitative study on December 6, 2010 (PRO1009033) (see Appendix B).

3.1 SAMPLE AND RECRUITMENT

The study population included women between the ages of 18 and 40 who had given birth in the past ten years but were not currently pregnant at the time of the interview and had experienced abuse during at least one of their pregnancies. Participants were recruited from Womansplace, a domestic violence shelter located in McKeesport, Pennsylvania. McKeesport is a former steel

mill town located east of the city of Pittsburgh. Formerly a thriving city in western Pennsylvania, it is now, because of the demise of the steel industry, generally quiet and has significantly declined in economic prosperity and population. Participants could either be receiving counseling services from Womansplace, living in transitional housing, or residing at the Womansplace shelter.

Due to the sensitive nature of the topic of experiencing abuse during pregnancy, it did not seem appropriate to recruit arbitrarily from the greater Pittsburgh area. Womansplace is one of the primary shelters for victims of IPV in Allegheny County, and that made it an ideal location for recruitment. The goal of recruitment was to find willing participants who openly acknowledged that they had been involved in an abusive relationship during their pregnancies. It would not have been ideal to interview women who were currently in an abusive relationship. Interviewing women currently in abusive relationships would heighten concern for their physical and emotional safety. This was an additional reason why Womansplace was an ideal location to find participants to interview, because women who have been accepted into Womansplace's 30-day program are currently not in touch with their abusers and they have sought assistance from social services and asylum from their abusive situations. Recruitment involved hanging flyers (see Appendix C) on the two floors of the shelter and by asking the staff of Womansplace to spread the word of the study in house meetings, counseling sessions, and meetings with women living in transitional housing provided by Womansplace.

The recruitment flyers instructed women to call the researcher if they were interested in participating in the research study. When women contacted the researcher, eligibility was determined by a screening questionnaire that asked the age of the woman, when she had given birth, and if she had experienced abuse during one of her pregnancies. Participants were also

asked if they had delivered prematurely or at full-term. The last inquiry did not determine eligibility, but it was the researcher's desire to interview both women who had a variety of pregnancy and birthing experiences. If a woman was deemed an eligible participant, the researcher and the participant scheduled a time for the researcher to come to Womansplace for a face-to-face interview. Womansplace was designated as the sole interviewing site because of the safety it provides for its residents. In addition, women who receive counseling services as well as those who live in transitional housing provided by Womansplace know where the shelter is located. Therefore, it was the ideal location at which to conduct the interviews.

Once the participant and the researcher met in person, permission to record the conversation was granted, the recorder was turned on, and the interviewer read that introductory/consent script to the participant (see Appendix D). If the woman was willing to participate, the researcher conducted an interview that asked about the participant's experiences during her pregnancy. Prompts included asking about abuse that the participant experienced as well as other factors that could affect pregnancy and birth outcomes, such as attending prenatal appointments, social support, and exposure to tobacco smoke. Those questions explored the individual, interpersonal, and community levels of the Social Ecological Model, which is one of the theoretical underpinnings of this issue. The interview also asked questions about how the participant felt the abuse she experienced during her pregnancy affected her birth outcomes. In addition, the interview aimed to find out what healthy behaviors the participant engaged in during her pregnancy, which touches on important components of both the Social Cognitive Theory and the Theory of Planned Behavior. Finally, the participant was asked what resources were needed and what advice they had for other women who were pregnant in abusive relationships.

At the conclusion of the recorded interview, participants were handed a short questionnaire (see Appendix E) to fill out by hand. The purpose of the questionnaire was uncover information that may not have been acquired during the interview. In addition, the questionnaire asked about the prevalence of certain health behaviors during the participant's pregnancy. After completing both the face-to-face interview and the written questionnaire, participants were presented with a ten-dollar gift card to a local supermarket chain in appreciation for their time and participation.

3.2 DATA ANALYSIS

The interviews were recorded and uploaded onto the researcher's personal computer as Windows Media Audio files. The researcher personally transcribed each interview verbatim using the software program ExpressScribe along with a foot pedal to assist in the playback of the interviews. Any names mentioned were omitted from the transcript and substituted with pseudonyms. As interviews were collected, the researcher began looking for common themes and outcomes by reading the transcriptions of the interviews to identify common themes and similarities between the stories. This method of data collection and interpretation, commonly known as Grounded Theory, aims to associate themes between stories throughout the process of collecting data (Goulding, 1999).

4.0 RESULTS

The researcher interviewed two women over the duration of the study. One participant, a young African-American female named Sarah, was interviewed at Womansplace. The other participant, Peggy, a young woman from the Caribbean, approached the researcher in vicinity of Womansplace and asked to be a part of the study. She was determined to be eligible for the study and gave her full consent for her information to be used. The researcher interviewed both Sarah and Peggy and the following data are solely from their experiences. Interviews lasted from ten minutes to a half hour and no identifying information was recorded.

Sarah, 26, has one child, a nine-year-old daughter, and it was during this pregnancy that she experienced verbal and emotional abuse from her mother. Though this does not completely qualify as a participant having experienced abuse from an intimate partner, the researcher maintains that Sarah did not receive the support she needed from the person who was closest to her during the course of her pregnancy and that Sarah had valuable information to share.

Sarah described her experience of being pregnant as akin to feeling like a slave. According to Sarah, her mother forced her to come home every day after work and stay inside, and verbally and emotionally abused her. Sarah described interactions with her mother:

She only did what she wanted to do. She always, almost every month, stole money and food stamps away from me so we didn't have – so which made me have to go out and figure out how to provide... she kept me in the house as much as she could.

Sarah explained that her mother is battling addiction problems, and that while she is sympathetic to her mother's sickness, she found her abusiveness intolerable. Even with the verbal abuse, Sarah did not feel that she could leave the situation until her daughter was born because she had nobody else who was supporting her through her pregnancy.

When asked about her pregnancy and birthing experience, Sarah described the birth as "fine" and with no complications. She also stated that the pregnancy, overall, was without incident and that she did a lot of walking throughout the pregnancy (primarily to be out of her house). Sarah believes that the labor may not have gone as smoothly as it did had it not been for her walking. Sarah carried her daughter to term.

Sarah expressed that if there could have been anything she would have wanted during her pregnancy that may have helped the stress of the verbal abuse she was experiencing, it would have been having someone to talk to. She did not feel as though she had a place to go that would serve as an outlet where she could share her feelings. Sarah articulated similar sentiments when asked about what would help other women in a stressful situation during their pregnancies:

An outlet. She needs somebody to vent to or somewhere to go to vent, um, at least have some choices where you don't have to be stuck in one place. Just worry about yourself and the health of you. If it's a hard pregnancy, it's really hard.

Though Sarah did not think her pregnancy was difficult, she said she has seen difficult pregnancies and births, such as that of her sister. Her sister had many complications throughout her two pregnancies, and her first child was stillborn. Sarah cannot imagine what that tough experience would be like on its own, much less paired with experiencing physical or emotional abuse.

Peggy has three children and experienced IPV during her third pregnancy, and the child is now six years old. In describing her former partner who is both her abuser and the father of the

now six-year-old, Peggy stated that he was, “mean, crazy, abusive.” However, she explained that until she became pregnant, he was kind, and they wanted to have a child together. He became verbally abusive towards her when she became pregnant, which eventually turned into physical violence. Peggy recollected that when she was, in his opinion, acting out of line, he would push or punch her. The first time Peggy’s abuser ever hit her was when she was pregnant, and she explained that he punched her in the chest.

Peggy stated that her abuser called her “every name in the book” and would say to her that he was going to “taunt you ‘til you drop.” When Peggy questioned her abuser as to why he got so angry, he would consistently put the blame on her.

When discussing social support, Peggy admitted that at times, friends were concerned and asked if anything was wrong. However, she said that she felt so much shame and fear for her safety that she did not feel comfortable confiding in her friends about her home life. She did try confiding in her family members, but they did not believe her because his demeanor in public was totally different from how he acted toward the participant behind closed doors.

Though no longer with her abuser (and in fact, he is in jail for sexual abuse of one of the participant’s older daughters), Peggy feels guilty for staying with her abuser for as long as she did. She explained that she was worried about raising a child on her own, and she was also depending on her abuser’s help in getting her green card. Though Peggy wanted to leave at times, she felt that she needed to stay because she was pregnant with her abuser’s child. However, she did question her abuser as to what would happen if his abuse resulted in the worse case scenario – her death:

...because I remember one time, I said to him, “What if you hit me so hard, I die? Then what?” He said, “If you die, you die.” He didn’t care. But part of me kept hoping that he would change.

Peggy contemplated hurting herself at times, but then realized that even if she were not around he would still be around to hurt other women. In addition, Peggy wanted to be around for her children.

Though Peggy was working during her pregnancy, she said that she had to stop working midway through her pregnancy due to complications she was having, which resulted from the abuse she experienced. Peggy described one fight with her abuser:

He threw me backwards on my back and I landed on the bed. And then he came over me and he stepped on my stomach and he said, "I want to squeeze the shit out of you." It's scary. He said I made him do it; that it was my fault. I can't keep my mouth shut.

Peggy was four months pregnant at the time of this incident. Medically, Peggy had consistently high blood pressure when she went to her prenatal appointments and this happened only with her third pregnancy. Her abuser did not come to her prenatal appointments, and though Peggy never disclosed that she was being abused to her OB/GYN, according to Peggy, her doctor never explicitly screened her for IPV:

They [the doctor] just said, "Whatever it is that's making your blood pressure go up so high, you got to calm yourself down."

Peggy is not sure she would have disclosed that she was experiencing abuse, even if the doctor had asked her explicitly about experiencing IPV. When asked if she would have disclosed information if her provider would have asked about her home life at every appointment, Peggy said that it was hard to know for sure, but perhaps she would have let her provider know.

Peggy believes that the abuse directly affected her pregnancy and birth outcomes. She said her other two children (resulting from pregnancies with no experiences of IPV) were carried almost to full-term; her third daughter was born six and a half months into the pregnancy. When Peggy found out that she was going to deliver early, she reacted this way:

The problems started before, because they're (the doctors) telling me, "Oh, we're sorry, we're going to have to take this baby from you." And I actually pleaded with them; I said, "Okay, I will try to eat better. I will try to do better," because when I was stressed, I can't eat. And I was really underweight.

The doctors insisted that they wanted to deliver Peggy's child because according to Peggy, the doctors explained that due to the state of malnutrition she was in, either she or her child was going to die if she did not deliver. Peggy promised that she was going to be able to improve her health, so she tried changing her behaviors at home, like putting water in her mouth whenever her abuser became verbally abusive so that she was unable to say anything back to him and risk his turning physically abusive. Before Peggy delivered, she did try to leave the relationship, but he made what Peggy now feels were empty promises and apologies, which resulted in her staying with her abuser.

Peggy gave birth at six and a half months due to health problems. When she went for a prenatal appointment, the health care provider wanted to take blood samples, but had trouble finding a vein, and Peggy started to seize. Her recollection is, "all I heard was 'Code blue, code blue.' When I woke up, she was already gone. They had to take her."

Peggy attended all of her prenatal appointments, she did not smoke or drink during her pregnancy, and she attempted to eat nutritious meals, but had a lot of trouble keeping food down. Besides watermelon, Peggy said that whenever she ate anything, it came right back up.

Peggy's advice to women who are pregnant and in abusive situations is to leave. She understands that it is easier said than done, but she wishes she had left at the first sign of verbal abuse. Peggy believes that it is better to be a single parent than to be with someone who does not provide love and support.

Both Sarah and Peggy self-reported that they ate nutritious meals during their pregnancies and that neither of them smoked or drank alcohol. They also both reported feeling very stressed during their pregnancies.

5.0 DISCUSSION

In considering the information provided by the two participants of the study, many topics surrounding IPV and the effects on pregnancy emerge that are worth discussing. It is imperative that women be screened for IPV as often as possible at doctor appointments throughout their childbearing years. Though the American College of Obstetricians and Gynecologists recommends screening for IPV at least once per trimester, only 10 to 65 percent of physicians in the United States reported actually follow those guidelines (Perrin et al., 2000; Sims, Sabra, Bergey, Grill, Sarani, Pascual, Kim, & Datner, 2011). Universal screening is important because studies show that screening increases the rate of disclosure of IPV increases by 25 percent (Bailey, 2010). In addition, studies have shown that the incidence rates of IPV drop after disclosure in a health care setting, even if no intervention is implemented afterwards (Bailey, 2010). As she explained, Peggy was not explicitly screened for IPV and stated that she did not believe she would have informed the doctor of the abuse she experienced if she had. However, it is possible that with repeated screening for IPV, eventually Peggy may have informed the doctor of her experiences at home.

Economically, it is advantageous to reduce the prevalence of IPV during pregnancy. Women who experience IPV are likely to have a 20 percent increase in health care costs (Chambliss, 2008). In 2005, 2.6 billion dollars accounted for expenses for full-term births. (Behrman and Butler, 2007). Conversely, the economic burden of complications surrounding

preterm births in the same year cost ten times the amount of money spent on full-term births, at over 26.2 billion dollars (Behrman and Butler, 2007). Peggy explained that she had many complications during her third pregnancy, including what resulted in a preterm delivery. There is speculation that the abuse she experienced played a direct role in her needing advanced medical care, and had the abuse not been prevalent during her pregnancy, perhaps there would have been less medical intervention needed, which would have resulted in lower medical costs.

The reasons behind why women stay in abusive relationships are very complicated and multifaceted. Chambliss (2008) explains that some studies suggest that women stay in relationships because of reasons such as the biological and emotional tie between a couple when a pregnancy occurs, or that a woman might stay for financial support. The reasons why both Sarah and Peggy stayed in their relationships are in line with what Chambliss suggests. Peggy stayed because she was pregnant with her abuser's child, he was helping her financially to obtain a green card, and she also acknowledged her feeling that she believed her abuser would change. A study of secondary data found that postpartum, close to half of the women studied who experienced IPV during their pregnancies were still experiencing abuse (Burke et al., 2008). Sarah, though not abused by an intimate partner, stayed in her mother's home for financial support. In addition, the biological bond with her mother may have had an impact on Sarah's decision to continue living in the house with her.

Sarah described how helpful it would have been to have somewhere to go during her pregnancy so she could talk about her feelings and experiences. What is so unfortunate is that Sarah was unaware of places and resources to help women who are in abusive situations. Sarah, being at Womansplace, is aware now of some of those resources. However, it would have been helpful for her during her pregnancy to know of places where she could seek solace. Therefore, it

is important that agencies and organizations make themselves as visible as possible so that women know where they can turn when they are in abusive situations. Peggy also expressed that she wanted to have more people to whom she could talk or from whom to seek help. She mentioned that she turned to friends and family for assistance but that because of the rapport that her abuser had with them, they did not believe that Peggy was actually experiencing abuse from him.

6.0 CONCLUSION

IPV affects over three million women each year and compromises victims' physical and emotional well-beings. Negative birth outcomes, such as preterm birth, low birth weight, fetal demise, and maternal trauma, affect quality of life for an expecting mother and contribute to large economic and societal burdens. Experiencing IPV during pregnancy is a major public health issue that affects over a quarter of a million women annually, with major harm to both mother and fetus. It is important to know what studies have found regarding repercussions of IPV as it relates to negative pregnancy and birth outcomes; data show that up to 20 percent of known causes of preterm births can be traced to incidences of IPV. The study that was completed for the purposes of this paper aimed to acquire insight from women who have experienced abuse during their pregnancies to understand how they perceived its effect on their lives. The researcher collected data from participants using both interviews and questionnaires. Both women who were interviewed felt strongly that experiencing either physical or emotional abuse hindered their experiences while pregnant. Similarities between participants' experiences included reporting staying with their abusers for financial support, acknowledging a lack of screening from health care providers at prenatal appointments, and experiencing a deficiency of support from family and friends. After reviewing the literature and completing the study, it is important to recognize the limitations of both the original research and of current programming

available to women who are victims of IPV during pregnancy. In order to continue the fight on this difficult issue, suggestions for further researching and programs are discussed.

6.1 LIMITATIONS

As with all research, this study has limitations. A major limitation of the study is its small sample size, which hindered the ability to add significant, pertinent information to the larger body of research on IPV during pregnancy. The inability to recruit more participants may be due to several factors. First, Womansplace has a 30-day shelter stay program. When women enter the shelter, they have only a month to determine where they will be living, to find a job, and generally to process their own experiences. It is quite possible that although women may have seen the recruitment flyers, they had other issues of concern, and taking the time to participate in an interview may have been of low importance for them.

Second, the researcher had not developed rapport with possible participants. Many women who have been in abusive situations tend to experience trust issues, and without developing rapport before attempting to set up interviews, women may have been wary of the study and not developed an interest in being a part of it. Though the researcher had previously known many residents of Womansplace, by the time recruitment began for the study, all of those women had left Womansplace's shelter, and the researcher met a completely new group. Time was not taken separately to get to know the newer residents of Womansplace, and this may have contributed to the lack of success in recruitment of participants.

In retrospect, the researcher could have altered recruitment methods. First, it may not have been appropriate to recruit via flyers. Potential participants may have overlooked the flyers

if they were not deliberately looking for opportunities to talk about their experiences. Instead, developing postcard-sized announcements to be placed in folders that each resident at Womansplace receives upon moving into the shelter may have been beneficial. The shelter counselor at Womansplace reviews the contents of the folder with each new resident during the intake process, and including information about the study in the folder may have helped to facilitate communication of the study between staff and resident, and more residents may have participated in the study.

Recruiting from other shelters in the Pittsburgh area may have increased the amount of participants as well. The researcher chose not to recruit from various shelters due to a perceived lack of time and resources. However, the researcher notes that using staff from Womansplace to gain entrée into the other shelters would have been useful.

Another limitation of this study is that this research was conducted in one shelter of a small city in Pennsylvania. Therefore, the experiences of the women interviewed are not representative of all women who experience IPV during pregnancy. In addition, the conclusions cannot be generalized to all populations of women experiencing IPV. Women who seek safety in shelters may not have the financial means to live independently, and they also may not have support from family or friends. It is important to keep in mind that victims of IPV may seek help and assistance in leaving their abusive situations in other ways, such as living at a parent's house. Additionally, victims of IPV during pregnancy who do have access to financial and social resources may have better birthing experiences and outcomes.

6.2 RECOMMENDATIONS FOR FURTHER PROGRAMMING & RESEARCH

A great deal of work is yet to be done in planning and implementing interventions for women who are victims of IPV. Though it often takes up to seven attempts before a victim of abuse permanently leaves her abuser, shelter stays are helpful in reducing the chances that she will return to her abuser (Chambliss, 2008). In fact, 50 percent of women do not return to their abusers after a one-week stay in a shelter (Chambliss, 2008). It may be helpful to increase the visibility of information about shelters or programs for women who are victims of IPV during pregnancy. Information could be placed in doctors' offices or at locations where many women will see the information, such as grocery stores or in the restrooms of establishments such as stores or doctors' offices. Though not every woman may receive prenatal care and see doctors, most women will, during the duration of their pregnancies, be out in public at a restaurant or shop and need to use the restroom. This makes putting information on available resources in restrooms an ideal situation, particularly because male abusers will not be able to see or control the dispersing of the information.

Bailey (2010) suggests that providing treatment programs for abusers could be helpful in reducing the rates of IPV. An abuser treatment program is a novel idea but would be extremely hard to implement if the partners are not interested in receiving help.

To increase the chances of women disclosing that their partners are abusing them, stronger recommendations would be beneficial for doctor offices, clinics, and hospitals to adequately screen for IPV. Sharps et al. (2007) suggest that words such as "hurt" and "danger" could be incorporated into screening tools as opposed to words such as "abuse" and "batter," which may carry stigmas with them. Health care providers need to be cautious if they screen for IPV and want to approach the abuser (Cook and Dickens, 2009) about his behavior. While the

intentions of providers may be good, the woman who is being abused will be punished for the provider's actions. Therefore, Cook and Dickens (2009) suggest that at the very least, providers need to get patient consent before approaching the abuser. As previously stated, some physicians cite not knowing enough information or being aware enough resources as reasons that they do not regularly screen pregnant patients for IPV (Gerbert et al., 1999). A way to remedy this is to adequately train health care providers throughout the course of their education about IPV and how to appropriately handle situations where their patients may be in abusive situations. The fewer barriers a physician perceives surrounding the outcomes of screening for IPV, the more likely he or she will sufficiently screen for IPV and provide patients with resources on IPV during pregnancy. In addition, developing appropriate screening materials for women in different stages of change, as defined in the Transtheoretical Model, is beneficial and may help with disclosure rates and improving patient-provider communication. A universal guide used with every pregnant patient may not address issues the woman associates as being present in her life, so a variety of screening tools should be developed and utilized (Burke, Mahoney, Gielen, McDonnell, & O'Campo, 2009).

Data show that many children who are abused or witness abuse as children grow up to become abusers themselves (Chambliss, 2008). Therefore, it would be beneficial to implement more programs for young children who have experienced abuse in their households in order to stop a cycle of abuse before it becomes harder to intervene. Practicing prevention is vital to reducing the chances of children becoming abusers in their adult lives. Programs could focus on violence as it relates to age-appropriate issues, such as educating on not hitting other peers. In addition, increased education for children on how to react when they are abused may be helpful in assisting them on identifying when they are experiencing abnormal and hurtful actions from

parents. If children know how to respond appropriately, this could potentially help in alleviating the amount or severity of abuse.

On a larger level, policy changes need to be made to make an impact on how IPV is perceived on a societal level. As mentioned before, many health care providers do not routinely assess women for IPV (Sharps et al., 2007). At the risk of over-questioning women about their safety with their partners, exposing women several times to the questions may increase the chances of her sharing her experiences. The more a woman is asked about her home life, the better the chance of her recognizing that the negative experiences she is having at home is not good or typical. If a woman is experiencing abuse during pregnancy, the consistent questioning from her provider may slowly reduce the stigma she may have about being a victim of IPV. Another policy-level change in the realm of health communication could be beneficial in helping a woman recognize that she is in a dangerous situation. Often times – particularly if a woman grew up in an abusive household – she may perceive the physical and emotional harm she experiences may as normal (Cook and Dickens, 2009). Providing more widespread information on how to recognize the signs of abuse may help women who are experiencing IPV to reach out for help. Radio and television public service announcements will help in the distribution of this information and will reach a large number of people. Changes should be made within legislation to make sure that health communication as it relates to IPV is readily accessible and diffused in a variety of ways.

Dunn and Oths (2004) found from their review of prenatal predictors of abuse that women were more likely to be in an abusive situation while pregnant if they did not have religious faith or belief in a higher power. Women who did have faith seemed to better emotionally handle their stressful abusive situations and focused on trusting and forgiving, even

if they stayed in their relationships. Though religion and spirituality are deeply personal subjects, it may be worth developing more programs that focus on faith in a higher power and allow the women to shift whatever blame they (or their abusers) have placed on themselves and recognize that the abuse that they are experiencing is not deserved. Programs that have a more spiritual aspect may also lead women to believe that a power is on their side. This could help women feel supported throughout their difficult circumstances.

Finally, the Theory of Planned Behavior (TPB), Social Cognitive Theory (SCT), the Social Ecological Model (SEM), and the Transtheoretical Model (TM) should continue to be used in the development of programs for women in abusive situations. The following are ways that the different theories or models can be utilized in program development. A possible activity using the TPB would be to work with women on a safety escape plan, using resources that she knows she can utilize and giving her the control of when and how she will leave her abusive situation. Health educators will be able to identify how strongly a woman desires to leave her abuser. Programs using the SCT should focus on helping the participants engage in activities that increase their self-esteem and develop positive self-image. Women who view themselves to be worthy and deserving of good relationships may take the steps needed to free themselves of abusers who impair their health. Any development of a program for women experiencing IPV during pregnancy should consider the effects of the different levels of the SEM when planning activities or interventions. For women in abusive situations during their pregnancies, issues in the community or societal levels of the SEM may influence what may seem to work on the individual-interpersonal levels. Programs that provide resources for women who are experiencing IPV during pregnancy could use the TM to develop a variety of activities and interventions that will help women as they transition between stages of change. Keeping

interventions fluid will allow women to successfully navigate through the process of the program and reach the maintenance stage.

6.3 CLOSING

The intricacies and complexity of IPV during pregnancy run deep, and it is a difficult issue to undertake. Many factors on a variety of levels may influence how a woman acts in circumstances of being abused during her pregnancy. The repercussions for all individuals and families are serious and significantly affect quality of life. Therefore, health care and public health professionals need to continue to fight against this very large public health issue. Preventing abuse is key and ideal, but programs need to continue to be developed, research needs to focus on continued contribution from women for whom this has been a reality, and it is imperative to increase availability of and accessibility to programming, both in the Pittsburgh area and nationwide. Taking these steps will reduce the overall occurrence and harm of IPV during pregnancies.

APPENDIX A: INTERVIEW GUIDE

Started after I've read the introductory script

1. How many children do you have? How old are they?
2. Tell me about your experiences during your pregnancy.
 - Abuse
 - Prenatal appointments
 - Social support
 - Smoke exposure
3. Do you think the abuse affected your pregnancy?
 - a. If "Yes"... "Tell me more about that."
 - b. If "I don't know"... "What do you mean by that?"
4. What kinds of things did you do to ensure that things went well during your pregnancy?
5. Is there anything that may have helped you during your pregnancy that you wish you had?
6. (If she has had multiple pregnancies) You mentioned that you had other children... how would your pregnancies compare?
7. When pregnant in an abusive relationship, what do women need that could help them?

APPENDIX B: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

This image has been removed for security reasons.

University of Pittsburgh Institutional Review Board

3500 Fifth Avenue
Pittsburgh, PA 15213
(412) 383-1480
(412) 383-1508 (fax)
<http://www.irb.pitt.edu>

Memorandum

To: Elana Barkowitz
From: Christopher Ryan, PhD , Vice Chair
Date: 12/4/2010
IRB#: PRO10090333
Subject: Exploring Women's Perceptions of Their Birth Outcomes: Intimate Partner Violence During Pregnancy

The above-referenced project has been reviewed by the Institutional Review Board. Based on the information provided, this project meets all the necessary criteria for an exemption, and is hereby designated as "exempt" under section 45 CFR 46.101(b)(2)

The IRB has approved the advertisement that was submitted for review as written. As a reminder, any changes to the wording of the approved advertisement would require IRB approval prior to distribution.

Please note the following information:

- If any modifications are made to this project, use the "**Send Comments to IRB Staff**" process from the project workspace to request a review to ensure it continues to meet the exempt category.
- Upon completion of your project, be sure to finalize the project by submitting a "**Study Completed**" report from the project workspace.

Please be advised that your research study may be audited periodically by the University of Pittsburgh Research Conduct and Compliance Office.

APPENDIX C: RECRUITMENT POSTER



Were you abused during your pregnancy?

Abuse can happen in all forms: physical, emotional, financial, and sexual. If you are interested in being a part of a research study through the University of Pittsburgh that is looking at the effects of abuse during pregnancy, please contact Elana Barkowitz through the contact information given below. All participants will receive a \$10 Giant Eagle gift card as compensation for their time.

You may be eligible for this study if...

- # You have given birth in the past ten years
- # You experienced any form of abuse from a partner during your pregnancy
- # You are between the ages of 18 and 40

Phone: 412-206-9519

Elana Barkowitz
412.206.9519

Elana Barkowitz
412.206.9519

Elana Barkowitz
412.206.9519

Elana Barkowitz
412.206.9519

Elana Barkowitz
412.206.9519

Elana Barkowitz
412.206.9519

Elana Barkowitz
412.206.9519

Elana Barkowitz
412.206.9519

Elana Barkowitz
412.206.9519

Elana Barkowitz
412.206.9519

APPENDIX D: INFORMED CONSENT SCRIPT

As I mentioned, my name is Elana. The purpose of this research study is to explore what pregnancy was like for women in abusive situations and how it affected their babies. I am interviewing women who have given birth in the past ten years, and who have also been abused during their pregnancies. This interview should last approximately 30 minutes, and there will be a short questionnaire to fill out at the completion of the interview. There is minimal risk associated with taking part in this study, and while there may not be any direct benefits to you, the information you provide may lead to programs that could help women in the future who are being abused during their pregnancies. You will receive a 10-dollar gift card to Giant Eagle at the completion of the interview as a token of my appreciation for your time. The interview is anonymous. I will not be recording your name. I will be audio taping the interview; however, the interview will be kept confidential, and only I will be listening to and transcribing the interview myself. You may want to refrain from using any names. However, if you do provide names, they will be omitted from the transcription. Please keep in mind that if anything is mentioned regarding child abuse or harm to your children, that I am mandated by the state to report it to Jolie Meade, the child advocate here at Womansplace. You do not have to answer any question that makes you feel uncomfortable. Finally, your participation is voluntary, and you may end the interview at any time. I will provide you with my phone number again at the end of the

interview, which is 412-206-9519, and if you have any questions after I leave, please feel free to contact me. Do you have any questions before we begin?

APPENDIX E: QUESTIONNAIRE

Before administering this, I said, “If you wouldn’t mind, please fill out this short questionnaire. You may find things on there that we talked about, but you may also find things that we didn’t talk about. As with the interview, please don’t feel like you have to answer any questions that make you uncomfortable.”

Questionnaire

1. How many children do you have? _____
2. During your pregnancy, did you... (please circle)
 - a. Attend all of your prenatal appointments? Yes No
 - b. Smoke? Yes No
 - c. Drink alcohol? Yes No
 - d. Eat healthy foods? Yes No
3. How stressed did you feel during your pregnancy? (please circle)
Not at all stressed - A little stressed - Moderately stressed - Very stressed
4. Is there anything else you would like me to know?

BIBLIOGRAPHY

- Ananth, C. V., & Vintzileos, A. M. (2006). Epidemiology of preterm birth and its clinical subtypes. *The Journal of Maternal-Fetal & Neonatal Medicine : The Official Journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians*, 19(12), 773-782. doi:10.1080/14767050600965882
- Bachman, R., Saltzman, L.E. (1995). *Violence against women: estimates from the redesigned survey*. Washington, DC: Bureau of Justice Statistics, US Department of Justice
- Bailey, B. A. (2010). Partner violence during pregnancy: Prevalence, effects, screening, and management. *International Journal of Women's Health*, 2, 183-197
- Behrman, R.E. & Butler, A.S. (Eds.). (2007). *Preterm Birth: Causes, Consequences, and Prevention*. Washington, DC: National Academies Press
- Bhandari, S., Levitch, A. H., Ellis, K. K., Ball, K., Everett, K., Geden, E., et al. (2008). Comparative analyses of stressors experienced by rural low-income pregnant women experiencing intimate partner violence and those who are not. *Journal of Obstetric, Gynecologic, and Neonatal Nursing: JOGNN / NAACOG*, 37(4), 492-501. doi:10.1111/j.1552-6909.2008.00266.x
- Bhutta AT, Cleves MA, Casey PH, Cradock MM, Anand KJS. (2002). Cognitive and behavioral outcomes of school aged children who were born preterm: A meta analysis. *JAMA*. 288(6):128–737
- Bhutta, Z. A., Lassi, Z. S., Blanc, A., & Donnay, F. (2010). Linkages among reproductive health, maternal health, and perinatal outcomes. *Seminars in Perinatology*, 34(6), 434-445. doi:10.1053/j.semperi.2010.09.002
- Bonomi, A., Anderson, M., Reid, R., Rivara, F., Carrell, D., & Thompson, R. (2009). Medical and psychosocial diagnoses in women with a history of intimate partner violence. *Arch Intern Med*. 169(18), 1692-1697
- Burke, J.G., Denison, J.A., Gielen, A.C., McDonnell, K.A., O'Campo, P. (2004) Ending intimate partner violence: an application of the transtheoretical model. *American Journal of Health Behavior*. 28(2), 122-133

- Burke, J.G., Lee, L.C., & O'Campo, P. (2008). An exploration of maternal intimate partner violence experiences and infant general health and temperament. *Maternal and Child Health Journal*, 12(2), 172-179. doi:10.1007/s10995-007-0218-z
- Burke, J.G., Mahoney, P., Gielen, A., McDonnell, K.A., O'Campo, P. (2009). Defining appropriate stages of change for intimate partner violence survivors. *Violence Victims Journal*, 24(1), 36-51
- Campbell, J., Torres, S., Ryan, J., King, C., Campbell, D. W., Stallings, R. Y., et al. (1999). Physical and nonphysical partner abuse and other risk factors for low birth weight among full term and preterm babies: A multiethnic case-control study. *American Journal of Epidemiology*, 150(7), 714-726
- CDC National Center for Prevention and Control *Understanding intimate partner violence: Fact sheet, 2011*. Available at http://www.cdc.gov/violenceprevention/pdf/IPV_factsheet-a.pdf
- CDC National Center for Prevention and Control *Sexual violence: Fact sheet, 2011*. Available at http://www.cdc.gov/violenceprevention/pdf/SV_factsheet_2011-a.pdf
- Chambliss, L., (2008). Intimate Partner Violence and its Implication for Pregnancy. *Clinical Obstetrics and Gynecology* 51:2, 385-397
- Cheng, D. and Horon, I. (2010). Intimate-partner homicide among pregnant and postpartum women. *Obstetrics and Gynecology*, 115(6), 1181-1186
- Coker, A. L., Sanderson, M., & Dong, B. (2004). Partner violence during pregnancy and risk of adverse pregnancy outcomes. *Paediatric and Perinatal Epidemiology*, 18(4), 260-269. doi:10.1111/j.1365-3016.2004.00569.x
- Cook, R. J., & Dickens, B. M. (2009). Dilemmas in intimate partner violence. *International Journal of Gynaecology and Obstetrics: The Official Organ of the International Federation of Gynaecology and Obstetrics*, 106(1), 72-75. doi:10.1016/j.ijgo.2009.03.011
- Cusick, S. and Tibbles, C. (2007). Trauma in pregnancy. *Emergency medicine clinics of North America*, 25, 861-872
- Dahlberg LL, Krug EG. (2002). Violence-a global public health problem. In: Krug E, Dahlberg LL, Mercy JA, Zwi AB, Lozano R, eds. *World Report on Violence and Health*. Geneva, Switzerland: World Health Organization; 1-56
- Dannenberg AL, Carter DM, Lawson HW, Ashton DM, Dorfman SF, Graham EH. (1995). Homicide and other injuries as causes of maternal death in New York City, 1987 through 1991. *Am J Obstet Gynecol*;172:1557-64
- Department of Health and Human Services and the Centers for Disease Control and Prevention. (2003). *Costs of intimate partner violence against women: executive summary*. National Injury Prevention Center

- Dietz PM, RoCHAT RW, Thompson BL, Berg CJ, Griffin GW. (1998). Differences in the risk of homicide and other fatal injuries between postpartum women and other women of childbearing age: implications for prevention. *Am J Public Health*; 88:641–3
- Dunn, L. L., & Oths, K. S. (2004). Prenatal predictors of intimate partner abuse. *Journal of Obstetric, Gynecologic, and Neonatal Nursing : JOGNN / NAACOG*, 33(1), 54-63
- Durand, J.G., Schraiber, L.B., Franca-Junior, I., and Barros, C. (2011). Impact of exposure to intimate partner violence on children’s behavior. *Rev Saude Publica*, 45(2), 355-364
- Durose, M.R., Harlow, C.W., Langan, P.A., Motivans, M., Rantala, R.R., and Smith, E.L. (2005). Family violence statistics: including statistics on strangers and acquaintances. Bureau of Justice Statistics
- Eichenwald, E. and Stark, A. (2008). Management and outcomes of very low birth weight. *The New England Journal of Medicine*, 358, 1700-11
- El-Mohandes, A. A., Kiely, M., Gantz, M. G., and El-Khorazaty, M. N. (2011). Very preterm birth is reduced in women receiving an integrated behavioral intervention: A randomized controlled trial. *Maternal and Child Health Journal*, 15(1), 19-28. doi:10.1007/s10995-009-0557-z
- Eli, G. and Otis, M. (2011). An examination of intimate partner violence and psychological stressors in adult abortion patients. *Journal of Interpersonal Violence*, [Epub ahead of print]
- Gerbert, B., Caspers, N., Bronstone, A., Moe, J., and Abercrombie, P. (1999). A qualitative analysis of how physicians with expertise in domestic violence approach the identification of victims, *Annals of Internal Medicine*, 131, 578–584
- Gielen, A.C., Ghandour, R.M., Burke, J.G., Mahoney, P., McDonnell, K.A., and O’Campo, P. (2007). HIV/AIDS and intimate partner violence: intersecting women’s health issues in the United States. *Trauma, Violence, & Abuse*, 8(2), 178-98
- Goulding, C. (1999). Grounded theory: Some reflections on paradigm, procedures and misconceptions. Working paper series, WP006/99, Wolverhampton: University of Wolverhampton
- Glander, S.S., Moore, M.L., Michielutte, R., and Parsons, L.H. (1998) The prevalence of domestic violence among women seeking abortion. *Obstetrics and Gynecology*, 91(6), 1002-6
- Hanson, M.J. (2010). Health behavior in adolescent women reporting and not reporting intimate partner violence. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 39(3), 263-76
- Humphreys, J. (2011). Sexually transmitted infections, pregnancy, and intimate partner violence. *Health Care for Women International*, 32(1), 23-38. doi:10.1080/07399332.2010.529211

- Humphreys, J., Tsoh, J., Kohn, M., and Gerbert, B. (2011). Increasing discussions of intimate partner violence in prenatal care using video doctor plus provider cueing: a randomized, controlled trial. *Women's Health Issues*, 21(2), 136-144
- Janssen, P. A., Holt, V. L., Sugg, N. K., Emanuel, I., Critchlow, C. M., & Henderson, A. D. (2003). Intimate partner violence and adverse pregnancy outcomes: A population-based study. *American Journal of Obstetrics and Gynecology*, 188(5), 1341-1347
- Katz, K. S., Blake, S. M., Milligan, R. A., Sharps, P. W., White, D. B., Rodan, M. F., et al. (2008). The design, implementation and acceptability of an integrated intervention to address multiple behavioral and psychosocial risk factors among pregnant african american women. *BMC Pregnancy and Childbirth*, 8, 22. doi:10.1186/1471-2393-8-22
- Kearney, M. H., Munro, B. H., Kelly, U., and Hawkins, J. W. (2004). Health behaviors as mediators for the effect of partner abuse on infant birth weight. *Nursing Research*, 53(1), 36-45
- Kiely, M., El-Mohandes, A. A., El-Khorazaty, M. N., & Gantz, M. G. (2010). An integrated intervention to reduce intimate partner violence in pregnancy: A randomized controlled trial. *Obstetrics and Gynecology*, 115(2 Pt 1), 273-283. doi:10.1097/AOG.0b013e3181cbd482
- Leone, J. M., Lane, S. D., Koumans, E. H., DeMott, K., Wojtowycz, M. A., Jensen, J., et al. (2010). Effects of intimate partner violence on pregnancy trauma and placental abruption. *Journal of Women's Health* (2002), 19(8), 1501-1509. doi:10.1089/jwh.2009.1716
- Lipsky, S., Holt, V. L., Easterling, T. R., & Critchlow, C. W. (2003). Impact of police-reported intimate partner violence during pregnancy on birth outcomes. *Obstetrics and Gynecology*, 102(3), 557-564
- Ludermir, A. B., Lewis, G., Valongueiro, S. A., de Araujo, T. V., & Araya, R. (2010). Violence against women by their intimate partner during pregnancy and postnatal depression: A prospective cohort study. *Lancet*, 376(9744), 903-910. doi:10.1016/S0140-6736(10)60887-2
- MacDorman M, Kirmeyer S. (2009). The challenge of fetal mortality. NCHS data brief, no 16. Hyattsville, MD: National Center for Health Statistics
- Mariani, C. (1996). Domestic violence survival guide. Flushing, NY: Looseleaf Law Publications, Inc
- McLean, I., Roberts, SA., White, C., Paul, S. (2011). Female genital injuries resulting from consensual and non-consensual vaginal intercourse. *Forensic Science International*, 204(1-3): 27-33
- Mitchell, C. (2004). The health impact of intimate partner violence. *J. Calif. Dent Assoc.* 32(5), 396-8

- Moraes, C. L., Arana, F. D., & Reichenheim, M. E. (2010). Physical intimate partner violence during gestation as a risk factor for low quality of prenatal care. *Revista De Saude Publica*, 44(4), 667-676
- National Cancer Institute. (2005). *Theory at a glance: a guide for health promotion practice* (2nd ed.). National Institute of Health Publication No. 05-3896
- National Conference of State Legislatures (2010). Fetal homicide laws. U.S. Department of Health and Human Services
- Parsons LH, Harper MA. (1999). Violent maternal deaths in North Carolina. *Obstet Gynecol*, 94:990-3
- Perrin K.M., Boyett, T.P., McDormott, R.J., (2000). Continuing education about physically abusive relationships: does education change the perceptions of health care practitioners? *J Contin Educ Nursing*, 31(6): 269-274
- Rennison, C. M., & Welchans, S. (2000). Intimate partner violence. Bureau of Justice Statistics Special Report. (NCJ 178247). Washington, DC: US Department of Justice, Bureau of Justice Statistics
- Roberts, A.L., McLaughlin, K.A., Conron, K.J., and Koenen, K.C. (2011). Adulthood stressors, history of childhood adversity, and risk of perpetration of intimate partner violence. *American Journal of Preventive Medicine*, 40(2), 128-138
- Rosen, D., Seng, J. S., Tolman, R. M., & Mallinger, G. (2007). Intimate partner violence, depression, and posttraumatic stress disorder as additional predictors of low birth weight infants among low-income mothers. *Journal of Interpersonal Violence*, 22(10), 1305-1314. doi:10.1177/0886260507304551
- Saltzman LE, Fanslow JL, McMahon PM, Shelley GA. (2002). Intimate partner violence surveillance: uniform definitions and recommended data elements, version 1.0. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; Available from: http://www.cdc.gov/ncipc/pub-res/ipv_surveillance/intimate.htm
- Shamu S, Abrahams N, Temmerman M, Musekiwa A, Zarowsky C. (2011). A systematic review of African studies on intimate partner violence against pregnant women: prevalence and risk factors. *PLoS One*, 6(3):e17591
- Shapiro BK, Batshaw ML. (2007). Mental retardation (intellectual disability). In: Kliegman RM, Behrman RE, Jenson HB, Stanton BF, eds. *Nelson Textbook of Pediatrics*. 18th ed. Philadelphia, Pa: Saunders Elsevier: chap 38
- Sharps, P. W., Laughon, K., & Giangrande, S. K. (2007). Intimate partner violence and the childbearing year: Maternal and infant health consequences. *Trauma, Violence & Abuse*, 8(2), 105-116. doi:10.1177/1524838007302594

- Shoffner, D. H. (2008). We don't like to think about it: Intimate partner violence during pregnancy and postpartum. *The Journal of Perinatal & Neonatal Nursing*, 22(1), 39-48. doi:10.1097/01.JPN.0000311874.30828.4e
- Silverman, J. G., Decker, M. R., Reed, E., & Raj, A. (2006). Intimate partner violence victimization prior to and during pregnancy among women residing in 26 U.S. states: Associations with maternal and neonatal health. *American Journal of Obstetrics and Gynecology*, 195(1), 140-148. doi:10.1016/j.ajog.2005.12.052
- Sims, C., Sabra, D., Bergey, M.R., Grill, E., Sarani, B., Pascual, J., Kim, P., and Datner, E. (2011) Detecting intimate partner violence: more than trauma team education is needed. *J. Am. Coll. Surg.*, [Epub ahead of print]
- Taft, A. J., Small, R., Hegarty, K. L., Lumley, J., Watson, L. F., & Gold, L. (2009). MOSAIC (MOthers' advocates in the community): Protocol and sample description of a cluster randomised trial of mentor mother support to reduce intimate partner violence among pregnant or recent mothers. *BMC Public Health*, 9, 159. doi:10.1186/1471-2458-9-159
- Wilson J, Websdale N. (2006). Domestic violence fatality review teams: an interprofessional model to reduce deaths. *J Interprof Care*. 20:535–544
- Xu, X., Grigorescu, V., Siefert, K. A., Lori, J. R., & Ransom, S. B. (2009). Cost of racial disparity in preterm birth: Evidence from michigan. *Journal of Health Care for the Poor and Underserved*, 20(3), 729-747. doi:10.1353/hpu.0.0180
- Zlotnick, C., Capezza, N. M., & Parker, D. (2010). An interpersonally based intervention for low-income pregnant women with intimate partner violence: A pilot study. *Archives of Women's Mental Health*, doi:10.1007/s00737-010-0195-x