

The Multilayered Relationship between Pregnancy and Intimate Partner Violence A Thematic Literature Review of a Public Health Concern

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Abstract

Intimate Partner Violence is a critical public health issue in the United States. Intimate Partner Violence can involve emotional, physical, financial, and reproductive abuse against a partner resulting in stress, trauma, lost days of work, negative birth outcomes, medical expenses, and death all of which have a broader societal impact. Intimate Partner Violence is a health equity concern because women are systematically, unjustly, and avoidably most often the victims of this violence. In analyzing this issue, ecosocial theory is useful in framing the relationship between Intimate Partner Violence and pregnancy as it encompasses the structural factors that affect health outcomes and perpetuate this health equity issue. This paper seeks to examine the multilayered relationship between Intimate Partner Violence and pregnancy; first, through assessing related literature on pregnancy spacing and reproductive coercion; then it will examine structural barriers to addressing Intimate Partner Violence during pregnancy; and finally, this paper will make recommendations targeted towards this multilayered public health issue; specifically, improved data collection and access to Long-Acting-Reversible-Contraceptives (LARCS). The purpose of this thematic

literature review is to examine the relationship between poor health outcomes and pregnancy spacing, Intimate Partner Violence, and reproductive coercion.

“Intimate partner violence (IPV) is a pervasive public health problem. Intimate partner violence refers to systematic violence used by one intimate partner to gain or maintain power and control over another intimate partner”

(U.S. Department of Justice, 2000 cited by Overstreet & Quinn, 2013, p. 109)

An Introduction to a Public Health Problem

According to the World Health Organization (WHO), Intimate Partner Violence (IPV) is any action that “causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviours (2017).” One in four women¹ in the U.S. experience IPV in their lifetime, and up to 35% of women seeking emergency services are seeking care due to IPV (Warshaw, 1993, cited by Bohn, 2003, p. 561). IPV results in 1,200 IPV-related deaths each year (CDC, 2005). In fact, 40% of female homicides each year are attributable to an intimate partner (CDC, 2018) and this risk increases during pregnancy (Liu et al, 2015, p. 591). IPV is a systematic, avoidable, and unjust public health problem. IPV is systematic due to the high prevalence of IPV, avoidable because the harm of IPV is avoidable if abusive behaviors were not perpetuated, and unjust because all individuals have the right to a relationship free of violence, thus it is unjust for so many to suffer due to IPV. IPV is an egregious problem that has far-reaching societal impacts.

¹ The authors recognize that individuals of other genders can also be the victims of IPV, and that this warrants evaluation in additional reviews and studies.

In addition to lost days of work and medical expenses, abused women are also more likely to experience sexually transmitted infections (STIs) (Campbell, 2002), unwanted pregnancy, miscarriages, preterm birth, and are more likely to have low birth weight babies (Liu et al, 2015, p. 591). According to the Centers for Disease Control and Prevention (CDC), each year “IPV victims also lose a total of nearly 8.0 million days of paid work...and nearly 5.6 million days of household productivity as a result of the violence” (2003, p. 1). Furthermore, IPV costs approximately \$6.7 billion annually in the U.S. alone due largely to medical and mental health expenditures (CDC, 2003, p. 2). The individual and societal cost of IPV in the U.S. alone is appalling and complicated by additional health disparities and inequities.

IPV and the resultant negative reproductive outcomes are further complicated by structural health inequities related to gender and race. Minorities are more likely to experience adverse pregnancy outcomes (Nabukera et al, 2008, p. 88), and women are more often the victims of IPV (CDC, 2003, p. 9). IPV during pregnancy represents a serious public health concern, which warrants further evaluation and intervention. To the knowledge of these authors, no previous paper has thematically addressed and integrated the literature on the health effects of pregnancy spacing, Intimate Partner Violence, and reproductive coercion, as well as potential recommendations, such as Long-Acting Reversible Contraceptives. Thus, this review is crucial to the field due to the intersecting relationship between IPV, pregnancy, pregnancy spacing, and reproductive coercion.

Methodology and Paper Aim

A search for literature was conducted in CINAHL, Google Scholar, Sociological Abstracts, and PubMed. Searches were conducted in English by the lead author, using the following search terms, “Pregnancy Spacing,” “Domestic Violence or Intimate Partner Violence” AND “Pregnancy

Spacing”, “Pregnancy” AND “Coercion”, “Domestic Violence or Intimate Partner Violence” AND “Pregnancy”, “Pregnancy” AND “Cultural Values” AND “U.S.”, “LARCs”, and “LARCs” AND “Empowerment”, which yielded 11,164 results. Studies were excluded if they did not contain health information, were not U.S. specific, and if they did not look at the intersections of phenomenon, such as Intimate Partner Violence *and* pregnancy. This resulted in a total of 17 articles that were reviewed.

This paper is organized as a thematic literature review; which first addresses the pregnancy spacing, the planning of pregnancy, and IPV during pregnancy. Then, it will address ecosocial structural barriers to addressing IPV in pregnancy through an exploration of the literature. Finally, this paper will make recommendations and discuss overarching limitations regarding this subject.

Literature Review

The health effects of unplanned pregnancy and Short Interpregnancy Intervals

Fifty percent of women of childbearing age in the U.S. will become pregnant at some point during their childbearing years, and many women in the U.S. will be pregnant more than once (Statista, n.d.). Thus, a short interpregnancy interval (SIPI) is described as pregnancy spacing that is 18 months or less between a live birth and conception of a subsequent pregnancy (Gemmell & Lindberg, 2013 cited by Cross-Barnett, 2017, p. 152-153). Healthy pregnancy spacing is crucial to the health of the mother and child. Cross-Barnett (2017) conducted a study about pregnancies among Medicaid recipients and found that “[c]losely spaced, unintended pregnancies...create avoidable risks for women and infants, including preterm birth.” (p. 152) Cross-Barnett (2017) posited, based on previous research, that not only do 33% of pregnancies have a SIPI, but SIPI also contributes to maternal mortality and preterm birth (Conde-Agudelo, Rosas-Bermudez, &

Kafury-Goeta, 2006; Conde-Agudelo et al, 2012; Creanga et al., 2015 cited by Cross-Barnett, 2017, p. 152-153). These issues are further compounded by racial and ethnic disparities in maternal and child health outcomes.

Nabukera et al. (2008) examined SIPI, pregnancy outcomes, and racial and ethnic disparities using a retrospective cohort study in Missouri with 239,930 black and white sibling pairs (p. 81). The authors found that blacks tended to have a SIPI for their second pregnancies, yet the authors also found that there was no significant association “between maternal age at first pregnancy, race and short interpregnancy intervals (Nabukera et al, 2008, p. 81). However, they did find that black women had more adverse maternal health outcomes than white women and that providers needed to address this issue in prenatal care (Nabukera et al, 2008, p. 88). Overall, the authors noted the racial and ethnic disparities in maternal health and birth outcomes but had inconclusive results regarding racial and ethnic differences in SIPI rates. Finally, it should be strongly emphasized that there are minimal correlations between demographic attributes and IPV prevalence (Jewkes, 2002), this paragraph was strictly describing racial and ethnic disparities and pregnancy.

Furthermore, Cross-Barnett (2017) asserts that in addition to the potential negative health impacts of SIPI, unplanned pregnancies also contribute to negative health outcomes for the mother and infant (Cross-Barnett, 2017, p. 153). The author notes that unplanned pregnancies comprise roughly half of all pregnancies in the U.S (Finer & Zolna, 2016, cited by Cross-Barnett, 2017, p. 153). Thus, Cross-Barnett (2017), assert in their study that contraception is pivotal to adequate pregnancy spacing and planned pregnancies (p. 153). Specifically, the author argues that long-acting reversible contraceptives (LARCs) result in the best outcomes, which will be discussed later

in this paper (Bocanegra, Chang, Howell, & Darney, 2014, cited by Cross-Barnett, 2017, p. 153). In summary, SIPI and unplanned pregnancies exacerbated by racial and ethnic disparities lead to negative health outcomes for mothers and children. The relationship between IPV on frequency and intentionality of pregnancy further complicates the relationship. In a cross-sectional survey of nearly 1,000 women at family planning clinics in California, McCauley and colleagues (2013) found that women experiencing IPV were more likely to use withdrawal and emergency contraception than women not experiencing IPV (McCauley, Silverman, Decker, Sucato & Miller, 2013).

IPV, Unplanned Pregnancies, Miscarriage, and Preterm Birth

Abuse prior to conception in the form of forced/coerced sex and barriers to contraceptive occur in IPV situations (Thiel de Bocanegra et al., 2010, p. 601). Women who experience reproductive violence have a greater prevalence of, “unplanned pregnancies, sexually transmitted infections (STIs)—including HIV—and cervical neoplasia than the general female population” (Thiel de Bocanegra et al., 2010, p. 601-602). Thiel de Bocanegra et al. (2010), conducted a study in which they assessed 53 women in a domestic violence shelter regarding their partners behaviors about birth control (p. 601). The authors found that 100% of women in the shelter experienced a range of reproductive abuse. For example, their partners “refused to use condoms, impeded them from accessing health care, and subjected them to birth control sabotage, infidelity, and forced sex.” (Thiel de Bocanegra et al., 2010, p. 601) Studies conducted by authors in 1994, 1995, 2000, 2001, and 2003 (Thiel de Bocanegra et al., 2010, p. 601), also found that IPV often included reproductive abuse, including refusal to use barrier method birth control, rape, and other forms of “birth control sabotage” (Thiel de Bocanegra et al., 2010, p. 601). Furthermore, the findings of

Miller et al. (2009), in their cross-sectional study of 1278 women, support the findings of Thiel de Bocanegra et al. (2010). The major difference between the two studies, was that the study by Thiel de Bocanegra et al. (2010) surveyed women living in a domestic violence shelter, whereas Miller et al. (2009) surveyed five family planning clinics. Yet, despite the differences in study design, Miller et al (2009) found that 20% of women experienced pregnancy coercion, 15% experienced birth control sabotage, and 41% had an unintended pregnancy (p. 318). This reproductive abuse results in adverse psychological and physical health outcomes.

Thiel de Bocanegra et al. (2010) found that in their study of 53 women there were a total of “68 unplanned pregnancies” (p. 607). The women experienced a myriad of abuse during the pregnancies, from physical abuse, to the prevention of abortions, to coercion into having an abortion (p. 607). This systematic, unjust, and avoidable abuse against pregnant women can lead to significantly higher odds of additional traumatic health events. Liu et al. (2015) found in their seven-year prospective cohort study with 282 survivors of IPV that half of their study had a preterm birth or miscarriage due to abuse (p. 596). In fact, they found that “[w]omen were 28 times more likely to have an abuse-induced miscarriage if their pregnancies resulted because the abusers did not use birth control.” (Liu et al, 2015, p. 597) These health outcomes pose a significant burden on women that often does not get the attention that it merits.

Frequently, when a woman leaves the abusive relationship, safety and financial security, rather than reproductive health, are the priority of social workers and the woman herself (Thiel de Bocanegra et al., 2010, p. 602). Thus, even though 66% of women in the study by Thiel de Bocanegra et al. et al. (2010) experienced reproductive abuse, such as refusal to use birth control, forced sex, pregnancy, or abortion (p. 605-606), these needs may not be addressed fully after

leaving the relationship despite the consequences of STIs, unwanted or unplanned children, or children that were wanted but were lost because a miscarriage due to abuse.

Keeling and Birch (2004) note that health providers must identify IPV early in the pregnancy to attempt to minimize possible adverse outcomes, especially because IPV usually escalates over the course of the pregnancy (p. 748-749). McFarlane, Parker, Soeken, and Bullock (1992) developed a tool to screen for IPV and found a prevalence rate of 17% among non-pregnant women and an even higher rate among pregnant women (McFarlane et al., 1992 cited by Bohn et al, 2003, p. 561). Abuse translates into potentially very poor outcomes in pregnancy; according to Bohn et al (2003), abuse during pregnancy can lead to “miscarriage, abruptio placentae, low birth weight, premature labor or birth, and intrauterine fetal death” (p. 562). While certain elements of IPV such as physical violence are often seen as direct threats to the health of mother and fetus, the effects of stress can also cause dire health concerns for the mother and long term consequences to the fetus; in fact stress alone, among women who are or are not in an IPV situation, can “[push] the endocrine system toward diabetes or the cardiovascular system toward coronary artery disease and hypertension.” (Halfon & Hochstein, 2002, p. 447). Moreover, abuse during pregnancy can also *contribute* to depression and stress (Bohn et al., 2003, p. 562). This is in addition to the problem that women who are dealing with IPV also often have insufficient healthcare access and use health services less frequently (Bohn et al., 2003, p. 562). A woman is in a precarious position if she is experiencing both pregnancy and IPV.

Screening for IPV

While some studies have found that IPV occurs more frequently among certain SES groups as well as specific race and ethnicities (Bachmann & Saltzman, 1995; Cokkinides, Coker,

Sanderson, Addy, & Bethea, 1999; Dearwater et al., 1998; Gazmararian et al., 1995; Muhajarine & D'Arcy, 1999; PRAMS, 1994; Tollestrup et al., 1999, cited by Bohn et al, 2003, p. 562), Bohn et al. (2003) importantly note that disparities in screening exist due to SES and racially biased healthcare provider practices (p. 562). They also note that social pressure in wealthier communities may account for these findings in the literature (p. 562), specifically the findings of lower IPV rates in among the wealthier (p. 562). Healthcare providers often do not screen women of higher socioeconomic status (SES) for IPV due to bias regarding SES and IPV (Bohn et al, 2003, p. 562), this could contribute to under-reporting and thus lack of research on IPV and high SES individuals.

Moreover, Bohn et al. (2003) explain that the findings of IPV differences across different SES groups may be due to the lack of a standard SES measure used across previous studies (p.562). However, the authors note that in their retrospective case control study they found that there was a graded relationship between low SES and abuse; yet they argue that it is difficult to account for the effects of poverty and stress on abuse prevalence (p. 563). Despite these limitations, it is clear that SIPI, IPV, reproductive coercion, and IPV during pregnancy all pose serious risks to the health of the mother and child; however, there are major barriers to addressing these issues.

Barriers

Structural barriers to addressing IPV in pregnancy include issues in screening for IPV by healthcare providers, cultural norms, and data collection. Policy is also important when discussing barriers and recommendations to IPV; however, it is not within the scope of this article. According to Krieger (2012), ecosocial theory encompasses the historical and current structural pathways contributing to disease distribution (p. 936). Krieger (2012) goes on to elucidate that people “literally biologically embody exposures arising from our societal and ecological context” (p. 936),

meaning, that women and their children physically express trauma caused by the distal and proximal determinants of health. In this case, the distal and proximal determinants are data collection, cultural norms, and IPV screening in healthcare.

Screening in Healthcare

The rationale for prenatal IPV screening has been underscored by the healthcare community including suggestions for periodic IPV screening and focused screening during new or annual examination visits (Mary Beth Phelan, 2004). The relationship between patients and physicians during clinic visits provides a unique opportunity for obstetricians and gynecologists to screen women for IPV. The Institute of Medicine (IOM) (Academy, Sciences, & Engineering, 2011), and the Association of Obstetricians and Gynecologists (ACOG) recommendation to screen and counsel women for IPV during clinic visits was adopted by the US Department of Health and Human Services (Moyer, 2013). The role of providers is further emphasized through positing the need for provider skills and competencies through their training (Ambuel et al., 2011).

Despite this training, some studies have found that healthcare providers do not feel adequately trained to screen for or counsel on IPV (Berg, 2017; Sormanti & Smith, 2010; Colarossi, Breitbart, & Betancourt, 2010 cited by Sprague, 2012, p. 589). Screening is an entry point for addressing IPV during pregnancy before it worsens, thus more robust training on screening for IPV ought to be considered. As noted by Berg (2017), training for healthcare professionals via toolkits and webinars are important; however, the robustness of the training should reflect the seriousness and high prevalence of the problem and should thus be an integral part of medical training.

Cultural Norms and Stigma

Another barrier facing pregnant women in IPV situations and/or with SIPI pregnancies, is societal and cultural norms (Overstreet and Quinn, 2013, p. 109, & Agbemenu et al., 2018, p. 3355). Among some minority groups, children are viewed as status-giving and thus producing many children is perceived as a noble goal (Agbemenu et al., 2018, p. 3355). This is a barrier to promoting pregnancy spacing. Furthermore, according to Overstreet and Quinn (2013), internalized stigma, as well as “anticipated stigma...[and] cultural stigma” (p. 109) systemically prohibit women from seeking services for IPV or from leaving their partners (p. 109). Moreover, while the relationship between pregnancy spacing and IPV is poorly studied, it can be argued that the combination of cultural pressure to conceive and stigma surrounding IPV could be a major proximal barrier to women seeking help and results in negative health outcomes.

Data Limitations

A final barrier to addressing IPV and pregnancy is a lack of data. Through the process of exploring this subject, the authors explored available information from the National Violent Death Reporting System (NVDRS), the National Electronic Injury Surveillance System (NEISS), and the National Health Interview Survey (NHIS). The major limitation with the NVDRS, NEISS, and NHIS datasets that none of them gather data on the all variables of interest, which were injury, homicide, pregnancy, pregnancy spacing, intimate partner status, depression, IPV, and pregnancy complications. NVDRS provides data on homicides due to intimate partner violence among women of childbearing age; NEISS provides data on non-fatal injuries due to a partner; and NHIS provides data on depression, pregnancy complications, and partner status. However, it should be noted that the Pregnancy Risk Assessment Monitoring System (PRAMS), does ask several questions of interest, including questions about abuse, pregnancy preparedness, contraception,

previous pregnancies, and pregnancy intention (CDC PRAMS, 2018). Yet, not a single dataset of these four large datasets capture all the variables of interest.

No single dataset provided information on injury, homicide, pregnancy, pregnancy spacing, intimate partner status, depression, pregnancy complications, and IPV. Essentially, the information provided by these data demonstrate an important but incomplete picture that illustrates a portion of the gravity of the situation, while gaps in the data collection of variables of interest demonstrate the need for future improved data collection. Lack of data is a structural contributor to IPV during pregnancy, because incomplete data potentially masks the scope of the problem making justification for resources difficult. Lack of data is a major barrier to addressing this health inequity because it is difficult to justify resource allocation when a clear picture regarding the scope and relationship of the problem is lacking. The combined structural factors such as healthcare screening, lack of comprehensive data collection and cultural norms and stigma, drive a portion of this public health issue. Thus, addressing this public health concern necessitates comprehensive interventions.

Recommendations

Long-Acting Reversible Contraceptives (LARCs)

Although only one study found that LARCs were potentially beneficial in IPV situations, the existing body of literature supports LARCs as vital for promoting healthy pregnancy spacing. As mentioned previously, SIPIs are associated with unintended pregnancies and both SIPIs and unintended pregnancies result in greater health risks (Harney et al., 2016, p. 245). Of all birth control methods, women who use LARCs have the highest rates of healthy pregnancy spacing (Thiel de Bocanegra et al., 2014, cited by Cross-Barnett, 2017, p. 153). Moreover, Thiel de

Bocanegra et al. (2010) found that women in IPV situations selected LARCs because they were “easier to conceal from their partners” (p. 609). LARCs are important in IPV situations and also for pregnancy spacing.

Moreover, women who received LARCs after a SIPI were less likely to have an additional SIPI (Harney et al., 2016, p. 245). However, Harney et al. (2016) found that a reason some women did not receive LARCs after a SIPI birth was due to issues with the medical provider, such as lack of training or lack of LARC availability (p. 246). In addition to LARC use after a SIPI, Higgins (2017) asserted in her qualitative study that LARC use among women who had never been pregnant was greatly affected by a woman’s desire *not* to get pregnant, and the more ambivalent one was regarding pregnancy, the less likely she was to use LARCs (p. 152). This finding is related to partner status, age, and culture (Higgins, 2017, p. 152). Overall, this is an area that warrants further research; however, it may be posited that promoting LARC usage in formal settings such as a doctor’s office, in a culturally competent manner could address some of the burden of forced pregnancy in IPV situations and promote healthy pregnancy spacing.

Improved Data Collection

No single dataset captures data on pregnancy spacing, contraceptive use, pregnancy health, IPV, injury, and homicide. Therefore, while data from NVDRS, NEISS, NHIS and PRAMS is crucial, a clearer and more comprehensive picture is important for better capturing this phenomenon. Additionally, while small data sets from cross-sectional, case control, and cohort studies in the literature indicate that there is a relationship between LARCs, pregnancy spacing, and IPV, there is no large-scale data set that fully captures the variables of interest. Therefore,

better data needs to be collected in order to better understand this phenomenon and identify needed resources to address the negative health outcomes associated with IPV and pregnancy.

Discussion and Limitations

Birth control cannot be discussed without recognition of the history of birth control and sterilization in the United States. The legacy of forced sterilization (Ko, 2016), as well as the birth control pill trials in Puerto Rico (Planned Parenthood, 2015, p. 4) must be recognized in any discussion of large-scale birth control promotion. Thus, the purpose of recommending LARCs is to support women's autonomy and not oppress it. Beyond this significant point, there are several other aspects of this review that merit discussion.

Much of the literature cited in this study is somewhat dated. Moreover, the lack of data and the reliance on smaller datasets compiled in various studies is a limitation because the datasets compared may not necessarily be comparable. This is because the variation in study design resulted in vastly different methodologies and populations. For example, some studies included upper-middle class participants who were recruited from clinics and self-selected to participate. Other studies included participants living in domestic violence shelter who were referred to the shelters by police. Another study only involved interviews with college students living on or near campus. These populations are comprised of very different socioeconomic classes, ages, and SES groups. Finally, not a single study examined SIPI, IPV, and LARCs together.

Moreover, due to the extreme vulnerability of the population suffering from IPV, compiling datasets and comparing results are met with serious ethical and IRB challenges. For example, many articles on IPV cite the importance of transportation and childcare in overcoming IPV challenges; yet, only one study isolated transportation as it related to outcomes after leaving

an abusive partner (Hawkins et al., 2017, p. 87), and this finding needs to be replicated and evaluated by future researchers among different groups. Much of the difficulty with improving data collection on IPV within social service agencies is due to ethical considerations, time, and resources. Social service agencies may have rules against data sharing even when identifying information has been removed. Additionally, with the organizations, adding paperwork to assess LARC use and SIPIs may be time and resource intensive and such agencies may simply not have the additional resources.

IPV is an unjust, systematic, and avoidable public health issue in the United States that disproportionately affects women. IPV during pregnancy is heinous and results in serious, sometimes fatal, outcomes for the mother and child. This thematic review demonstrates that SIPI and IPV independently result in negative health outcomes, yet no study has examined SIPI *among* IPV victims. Moreover, structural barriers, including stigma, cultural norms, healthcare screening, and limitations in the literature and data, hinder the creation of interventions that are conceived with a broad picture of this phenomenon. Specifically, no data set fully captures the covariates that may affect pregnancy outcomes. The multilayered relationship between IPV and pregnancy warrants additional research and aggressive interventions to address this public health threat, which permeates society, is perpetuated by proximal and distal structural components, and costs hundreds of lives and billions of dollars each year.

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