Intimate Partner Violence During Pregnancy:

A Narrative Literature Review

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Abbreviations

IPV – Intimate partner violence

P-IPV – Intimate partner violence during pregnancy

Key Messages

- Intimate partner violence is a public health issue that disproportionately affects women, particularly those in Canada who are Indigenous, are of sexual minority, have disabilities, are young, and live in rural areas.
- The risk factors for victimization and perpetration of intimate partner violence are very similar with a combination of individual (e.g., substance abuse), relationship (e.g., marital difficulties), community (e.g., poverty), and societal factors (e.g., traditional gender roles) at play.
- Intimate partner violence during pregnancy is associated with significant physical and psychological consequences that can be longstanding for a pregnant woman and her fetus.
- Intimate partner violence has a profound impact on society and the economy.
- The evidence is mixed on the effectiveness of various interventions in preventing initial and recurrent intimate partner violence.

1. Introduction

Women's struggle for equality goes back far in history. Violence towards women by intimate partners is not new, at one time considered acceptable in the eyes of the law, religion, and culture. What is new is the recognition that intimate partner violence (IPV) is a form of gender-based violence that is a violation of women's human rights. IPV is also recognized as a global public health problem with impacts extending beyond the home to all of society.

IPV refers to behaviour by an intimate partner or ex-partner that causes physical, sexual, or psychological harm (World Health Organization, 2021). While IPV can occur between partners of any gender or sexual orientation, most often, women are victims and men are the perpetrators (Government of Canada, 2022; Public Health England, 2019; Statistics Canada, 2019a). Women also disproportionately experience the most severe forms of IPV, such as being choked or sexually assaulted (Government of Canada, 2022). Gender norms that socialize men to value patriarchy, aggression, power, and emotional suppression are thought to be a primary cause of gender-based violence (Fleming et al., 2015).

The World Health Organization (2021) estimates 27% of women worldwide have experienced physical or sexual abuse by an intimate partner at least once in their lifetime. IPV can also include psychological violence. Because of worldwide differences in how psychological violence is measured and the threshold by which violence goes beyond what may be considered unkind or insulting, it is difficult to compare worldwide prevalence of psychological violence (World Health Organization, 2013, 2021). While psychological violence is easier to conceal than physical and sexual violence, it is the most prevalent form of IPV against women in Canada (Government of Canada, 2022).

Although IPV can occur and have significant adverse effects on women at any time in life, it is most prevalent amongst those in their reproductive years (Comacchio et al., 2022). IPV may begin, intensify, or increase in frequency during the prenatal period. An estimated 25% to 50% of women who experience IPV report experiencing the first instance of violence during pregnancy, with the risk being higher when the pregnancy is unplanned or unwanted (Comacchio et al., 2022; Drexler et al., 2022). It has been theorized that the increased physical, emotional, social, and economic demands during the prenatal period are associated with an increased vulnerability to violence during this time (Mojahed et al., 2021).

Intimate partner violence during pregnancy (P-IPV) is one of the biggest health risks during the prenatal period (Comacchio et al., 2022; Drexler et al., 2022). IPV is more common among pregnant women than gestational diabetes or preeclampsia (Román-Gálvez, Martín-Peláez, Fernández-Félix, et al., 2021). The physical and psychological effects of P-IPV on the mother and child can be long lasting and often intergenerational, with the likelihood of future perpetration of violence and victimization being increased among people exposed to violence in childhood.

For years, gender-based violence has been overlooked and ignored, resulting in women not receiving adequate care and services (Andreu-Pejó et al., 2022). As has been the case with the advancement of all of women's equality rights, improvements in systemic and societal responses to IPV in Canada have occurred largely because of advocacy efforts undertaken by women (Government of Canada, 2023). In 2017, the Government of Canada launched a Gender-Based Violence Strategy to prevent and address gaps in supports for diverse populations including Indigenous women and girls, Black and racialized women, immigrant and refugee women, 2SLGBTQI+[1] people, women with disabilities, and women living in northern, rural, and remote communities (Government of Canada, 2023).[2]

The objective of this narrative literature review is to describe and synthesize the available literature on P-IPV, identify key themes, provide a broad perspective on the topic, and identify areas for further research.

2. Methods

2.1 Search strategy

An electronic search of the available literature was performed on October 3, 2023, from the PubMed and Trip databases using relevant keywords like "intimate partner violence" and "pregnancy". See Appendix 1 for a comprehensive list of search terms. A search filter was applied to retrieve only systematic reviews and evidence-based review articles published in the English language since January 1, 2019. A focused internet search of grey literature for information related to the prevalence of IPV (in Canada and globally) was performed on October 17 and November 27, 2023.

2.2 Selection criteria

The articles were screened for relevance and eligibility based on inclusion and exclusion criteria. The inclusion criteria required that the articles be published in the English language since January 1, 2019, report on IPV during pregnancy, be a systematic review or other evidence-based review article, and have women from high-income countries as the study population. Articles were excluded if they did not meet the inclusion criteria or were duplicates.

2.3 Summary of Studies

A total of 382 articles were identified in the database search, 61 of which were duplicates and excluded. From the 321 remaining articles, 188 were excluded after title and abstract screening and 133 full-text articles were obtained and reviewed. From those, 79 were excluded. An additional 12 citations were added from a grey literature search. A total of 60 citations met the

[1] The Government of Canada uses the acronym 2SLGBTQI+ to represent two-Spirit, lesbian, gay, bisexual, transgender, queer, intersex, and additionally sexually and gender-diverse people.
[2] For more information about the Gender-Based Violence Strategy, please visit https://women-gender-equality.canada.ca/en/gender-based-violence/gender-based-violence-strategy.html.

inclusion criteria and were included in this literature review. See Appendix 2 for the study selection process.

3. Prevalence

3.1 Global Rate of IPV

Although it is problematic to compare the prevalence of IPV between countries because of differences in screening strategies, the socio-cultural context of the study population, quality of the study, and how IPV and types of IPV are defined (Román-Gálvez, Martín-Peláez, Fernández-Félix, et al., 2021), it has not stopped researchers from doing so (Mojahed et al., 2021; Pastor-Moreno, Ruiz-Pérez, Henares-Montiel, et al., 2020; Román-Gálvez, Martín-Peláez, Fernández-Félix, et al., 2021; Román-Gálvez, Martín-Peláez, Martínez-Galiano, et al., 2021; World Health Organization, 2013).

In a large systematic review and meta-analysis involving 157 studies from 52 countries, the worldwide prevalence for any type of violence during pregnancy was 25% (Román-Gálvez, Martín-Peláez, Fernández-Félix, et al., 2021), as seen in Table 1. Rates of violence, of any kind, were lowest in Europe (5.1%), followed by North America (20.4%), and highest in Africa (36.1%). In all continents, psychological violence was found to be the most prevalent form of violence, followed by physical violence, and then sexual violence.

Table 1. Worldwide prevalence of IPV in pregnancy according to type of violence (Román-Gálvez, Martín-Peláez, Fernández-Félix, et al., 2021)

	Any Type of Violence (%)	Psychological Violence (%)	Physical Violence (%)	Sexual Violence (%)
Worldwide	25.0	18.7	9.2	5.5
Europe	5.1	4.2	2.1	0.5
North America	20.4	28.6	9.0	8.9
South America	25.6	23.4	9.8	2.7
Asia	32.1	19.3	9.0	6.6
Africa	36.1	25.2	16.3	12.4

3.2 Canadian Rate of IPV

Recent (since 2019) Canadian statistics on the prevalence of IPV specific to the prenatal period were not found in the database searches or grey literature search. A dated review by Daoud et al. (2012) describes the results of the Maternity Experiences Survey completed in 2006 and 2007. Among Canadian women who responded to the survey, 10.9% experienced physical and/or sexual violence in the last two years. Of these, 6% experienced violence before they were pregnant, 1.4% experienced violence during pregnancy, 1% experienced violence postpartum, and 2.5% experienced violence during any combination of these times. In 52% of these cases, the perpetrator was an intimate partner. Additional older statistics are also referenced by Daoud et al. (2012), showing wide variation across studies with physical violence

during pregnancy reported as 6.6% in Ontario in 1993, 5.7% in Saskatoon in 1999, and 1.2% in Vancouver in 2003.

Recent IPV rates against Canadian women, not limited to those who are pregnant, was identified in the grey literature and summarized below. Police-reported rates of IPV have been calculated in Canada but because of stigma, shame, belief that abuse is a private matter, fear of court system interventions and a lack of trust in the criminal justice system, it is likely that police-reported rates of IPV are an under-estimation of the true picture (Government of Canada, 2022). In 2019, 84,664 Canadian women over the age of 15 (or 536 reports per 100,000 people) reported incidents of IPV to the police (Statistics Canada, 2019a). Saskatchewan had the highest police-reported IPV rate among the provinces at 1,175 reports per 100,000 people, as seen in Table 2 (Statistics Canada, 2019a). This is more than double the Canadian rate.

Table 2. Rate of police reported IPV against females aged 15-89 by province and territory in 2019 (Statistics Canada, 2019a)

Province or Territory	Rate (per 100,000 people)
Canada	536
Nunavut	9,303
Northwest Territories	6,640
Yukon	2,027
Saskatchewan	1,175
Manitoba	979
New Brunswick	700
Alberta	651
Newfoundland and Labrador	597
Nova Scotia	533
British Columbia	510
Quebec	499
Prince Edward Island	422
Ontario	398

In a 2018 survey of Canadian women over the age of 15, 44% of those who had ever been in an intimate partner relationship reported experiencing IPV at some point in their lifetime – compared to 35% of men (Government of Canada, 2022). Violence affects women regardless of culture, social class, age, or ethnicity. With that being said, Canadian women who are Indigenous, are of sexual minority (i.e., those whose sexual orientation is gay lesbian, bisexual, or another sexual orientation that is not heterosexual), have disabilities, are young, and live in rural areas are overrepresented as victims of IPV (Government of Canada, 2022). This is consistent with what is found in study populations outside of Canada (Ayala Quintanilla et al., 2023; Bullinger et al., 2023; Emezue et al., 2022; Nguyen et al., 2023). The dynamics of IPV in Indigenous populations has been linked to colonization, residential schools, foster care, poverty

and addictions (Statistics Canada, 2019b). Sexual minority women are more likely to be victims of abuse and harsh parenting as children, which is strongly associated with an increased risk of victimization in adulthood (Statistics Canada, 2018a). One of the reasons provided for the higher risk of IPV for women with disabilities is related to socioeconomics. For example, women with disabilities are less likely to have post-secondary education, participate in the labour force, and tend to have lower incomes, all of which may significantly impact a woman's ability to leave a violent relationship (Statistics Canada, 2018b).

4. Risk Factors for Perpetration and Victimization

A complex interaction of individual, relationship, community, and societal factors contribute to the risk of becoming a victim or perpetrator of IPV (Drexler et al., 2022). While these risk factors may be associated with an increased likelihood of IPV on either end of the violence, they are not causes for the behaviour (Drexler et al., 2022). While there are some risk factors specific only to IPV victimization, the majority of the risk factors are very similar for both victimization and perpetration, with a fairly consistent pattern described in the literature (Boyacioğlu et al., 2021; Canadian Centre on Substance Abuse and Addiction, 2022b, 2022c; Cao et al., 2023; Comacchio et al., 2022; Drexler et al., 2022; U.S. Preventive Services Task Force, 2019). These risk factors are summarized in Table 2.

Table 2. IPV risk factors for both victims and perpetrators

Individual	Relationship	Community	Societal
• Young age • Short-term relationships • Substance use disorders (particularly alcohol) • Mental health disorders • Unplanned pregnancy • Low education • Personal history of abuse or witnessing IPV • Low income • Unemployment	• Marital difficulties (e.g., separation, divorced)	• Poverty • Poor social cohesion • Weak social capital	• Traditional gender roles • Structural violence (e.g., systemic racism, xenophobia, homophobia, transphobia) • General acceptance of violence for conflict resolution

In a review by Agarwal et al. (2023), risk and protective factors for IPV specific to women during pregnancy are described. In terms of individual factors, they reported that women who lack social support may be more vulnerable to IPV. Women who have low self-esteem may believe they deserve to be treated poorly and are not capable of taking steps to protect themselves from an abusive partner. Conversely, women with high self-esteem may be better able to cope in stressful

situations, be more resilient, and seek support from friends, family, and community resources. Unsurprisingly, the quality of the relationship between the pregnant woman and her partner was found to play a major role in the risk of P-IPV. When a partner is supportive, engaged in the pregnancy, and the couple has skills to effectively communicate and resolve conflict, a woman's risk of P-IPV is reduced.

In terms of community and societal factors, this review reported that women who reside in communities with high rates of poverty, unemployment, and social inequality are at an increased risk of experiencing P-IPV (Agarwal et al., 2023). Economic stress, a lack of community resources and services, and social isolation can all contribute to the occurrence of IPV. On the other hand, communities with strong social support networks (e.g., neighbourhood groups, community centres), IPV prevention programs (e.g., counseling services and emergency shelters), and accessible healthcare may have a positive impact on a woman's risk of IPV. Accessible healthcare provides opportunities for women to discuss P-IPV with their healthcare providers and receive treatment for injuries caused by the violence.

5. Adverse Pregnancy Outcomes

The prenatal and postnatal effects of IPV on pregnant women and fetuses are significant and well documented in the literature.

5.1 Effects on the Mother

P-IPV has a profound impact on the mother's psychological and physical health. P-IPV has been found to conclusively and consistently lead to an increased likelihood of prenatal and postnatal depression (Al-Abri et al., 2023; Andreu-Pejó et al., 2022; Ankerstjerne et al., 2022; Comacchio et al., 2022; Gopalan et al., 2022; Paulson, 2022; Robinson et al., 2019; U.S. Preventive Services Task Force, 2019; Wei et al., 2023; Yemane & Sokkary, 2022), anxiety, post-traumatic stress disorder (PTSD), and suicidal behaviour (Andreu-Pejó et al., 2022; Bayrampour et al., 2019; Bright et al., 2022; Paulson, 2022; Robinson et al., 2019; Stacy et al., 2022; U.S. Preventive Services Task Force, 2019). Women who experience P-IPV are also less likely to feel attached to their fetus, which is the foundation for postnatal mother/infant bonding (Murray et al., 2020).

Maternal psychological distress associated with violence can have a substantial effect on the physical health of the mother, subsequently affecting fetal health and development. For example, P-IPV is associated with having reduced immune function, leading to a substantially higher likelihood of infections (e.g., urinary tract infections, kidney infections and sexually transmitted infections) (Murray et al., 2020). It is also associated with an increased risk of developing gestational diabetes (Pheiffer et al., 2020). P-IPV is frequently associated with substance use issues (e.g., alcohol and cannabis), typically explained as a method of coping with the psychological and physical distress of IPV victimization (Canadian Centre on Substance Abuse and Addiction, 2022a, 2022b, 2022c, 2023; Murray et al., 2020). Physical injury is a major consequence of IPV - the gravest consequence being maternal homicide (Andreu-Pejó et al.,

2022; Ayala Quintanilla et al., 2023; Bullinger et al., 2023; Campbell et al., 2021; Drexler et al., 2022; Pastor-Moreno, Ruiz-Pérez, Henares-Montiel, & Petrova, 2020), with ethnic and racial disparities reported in the literature (Drexler et al., 2022; Statistics Canada, 2019a). In Canada between 2014 and 2019, there were 497 victims of intimate partner homicide reported, 80% of which were female, 26% were Indigenous, and 25% belonged to a group designated as a visible minority[3] (Statistics Canada, 2019a).

5.2 Effects on the Fetus

The effects of P-IPV extend beyond the mother to the fetus with a sizeable body of research supporting the impact of IPV on prenatal and neonatal outcomes. Because of the rapid brain development that occurs during the gestational period, in-utero insults have the largest impact on this stage of life than any other (Bogat et al., 2023; Román-Gálvez, Martín-Peláez, Martínez-Galiano, et al., 2021; Toso et al., 2020). The most commonly reported IPV effects on fetal and infant health noted in the literature include pre-term birth, low birth weight, (Andreu-Pejó et al., 2022; Cataldo et al., 2019; Da Thi Tran et al., 2022; Drexler et al., 2022; Guo et al., 2023; Murray et al., 2020; Pastor-Moreno, Ruiz-Pérez, Henares-Montiel, et al., 2020; Robinson et al., 2019; Toso et al., 2020; U.S. Preventive Services Task Force, 2019; Yemane & Sokkary, 2022), small for gestational age (Robinson et al., 2019; Toso et al., 2020), premature rupture of membranes (Andreu-Pejó et al., 2022; Pastor-Moreno, Ruiz-Pérez, Henares-Montiel, & Petrova, 2020), and prenatal death (Bullinger et al., 2023; Drexler et al., 2022; Pastor-Moreno, Ruiz-Pérez, Henares-Montiel, & Petrova, 2020; Robinson et al., 2019; Toso et al., 2020; Yemane & Sokkary, 2022). Causes of prenatal death include blunt trauma, maternal infections, maternal stress, poor nutrition, and maternal coping strategies such as substance abuse (Drexler et al., 2022).

The mechanism by which P-IPV affects fetal and later child development is complex and not well understood but several factors have been speculated in the literature (Bogat et al., 2023; Murray et al., 2020). P-IPV has been associated with an avoidance of breastfeeding (Bullinger et al., 2023; Normann et al., 2020; Robinson et al., 2019), delayed mother-infant attachment (Atzl et al., 2019; Bogat et al., 2023; Bullinger et al., 2023; McIntosh et al., 2019; Robinson et al., 2019), and increased abusive behaviour exhibited by the mother towards the infant (Bullinger et al., 2023; Robinson et al., 2019). Maternal stress, depression, and anxiety associated with victimization likely contributes to a mother's inability to bond with her child before and after birth. It is speculated that difficulties relaxing for adequate let-down, depression and anxiety, a lack of support, and self-doubt influence the establishment of breastfeeding practices (Normann et al., 2020).

Additionally, stress associated with P-IPV influences the development of fetal stress systems in utero, having long-lasting effects on the physiology and mental health of children (Bogat et al.,

[3] Statistics Canada defines a visible minority as non-Caucasian in race or non-white in colour, or who do not identify solely as an Indigenous person. Visible minority identity groups include South Asian, Chinese, Black, Filipino, and Latin American.

2023). For example, toddlers exposed to IPV in utero exhibit increased developmental problems, especially externalizing behaviours related to psychological stress and anxiety during the pregnancy (Bogat et al., 2023; Robinson et al., 2019; Toso et al., 2020).

6. Economic Impact

The adverse maternal and fetal health impacts of IPV described lead to increased healthcare costs. A substantial amount of research has shown that women who experience P-IPV are less likely to receive adequate prenatal care, including attending fewer than recommended appointments (Drexler et al., 2022; Murray et al., 2020; Musa et al., 2019; Robinson et al., 2019; Toso et al., 2020; Yemane & Sokkary, 2022). Women who attend fewer prenatal appointments have been found to experience more pregnancy complications and adverse birth outcomes (Murray et al., 2020). In a systematic review of the economic burden of maternal morbidity in the United States, one primary study examined the hospital costs associated with IPV. P-IPV was found to result in longer hospital stays, greater prevalence of clinical conditions such as sexually transmitted infections and depression, and poorer birth outcomes, such as preterm birth (Moran et al., 2020). Similarly, in a review by Bullinger et al. (2023), studies were cited that found P-IPV to result in higher healthcare costs associated with increased emergency department use, intensive care unit stays, and adverse birth outcomes, as well as fetal and maternal deaths.

IPV has a profound economic effect on society beyond the costs to healthcare systems (Bullinger et al., 2023; Moran et al., 2020; Yemane & Sokkary, 2022). Recent (2019 or newer) North American data on the magnitude of the financial effect was not found through the database or grey literature search. Cost estimates of IPV, not specific to pregnancy, were identified for 2014 in the United States and 2009 in Canada. Including the direct and indirect impact borne by the justice system (e.g., corrections, police, child protection), victims (e.g., loss of productivity and earnings, healthcare), and third parties (e.g., social services, losses to employers), the estimated cost of spousal violence against Canadian women in 2009 was $4,839,973,721 (Government of Canada, 2021) and $103,800 per US female in 2014 (Bullinger et al., 2023).

7. Intervention Strategies

Public health interventions can be divided into three types: primary, secondary, and tertiary prevention. Primary prevention aims to prevent disease or injury before it occurs, secondary prevents recurrence of the disease or injury, and tertiary aims to prevent morbidity and mortality caused by the disease or injury. Much of the evidence identified on prevention strategies for IPV focuses on secondary and tertiary prevention, but a few were identified that focused on primary prevention strategies. For the remaining identified prevention strategies, the detail provided in the reviews was insufficient to determine if the strategies should be classified as secondary or tertiary prevention. Furthermore, the programs provided to women are often a combination of both. That is, women are often offered resources to treat depression caused by the IPV at the same time as

being provided with tools to prevent recurrence of violence. For these reasons, the evidence on secondary and tertiary prevention strategies are summarized together below.

7.1 Primary Prevention

Primary prevention efforts for IPV consist of educational efforts that promote healthy relationships, conflict resolution, and a change in attitude and behaviour before any violence occurs. IPV typically starts before the age of 18 (Bullinger et al., 2023), so it is not surprising that many primary prevention strategies take place within schools.

In a systematic review assessing the effectiveness of school-based sex-education programs in modifying a range of outcomes including IPV, researchers found programs to demonstrate positive outcomes (Goldfarb & Lieberman, 2021). Programs were described as increasing knowledge and positive behaviour and decreasing IPV perpetration and victimization; however the quality of this work by Goldfarb and Lieberman (2021) is criticized in a response by Ericksen and Weed (2023). Goldfarb and Lieberman (2021) conclude that there is extensive evidence to support school-based programs in improving knowledge and attitudes regarding IPV, victim blaming, and sexist attitudes. The authors note that beyond this, school-based programs have resulted in behaviour change. Improved communications skills, anger management, increased self-efficacy, adherence to social norms, and rejection of sexual harassment are some improved behaviours referenced. The authors note that the most effective prevention strategies are the ones that focus on social justice, shifting social norms and gender roles, and conflict management. Most notable is the authors' claim that school-based programs have proven effective in reducing the incidence of IPV up to four years post-intervention. Ericksen and Weed (2023) published an article in critique of the research by Goldfarb and Lieberman (2021). Their two main criticisms were that of the 32 IPV-related studies cited as supporting evidence for comprehensive sex education, only four were studies that can be classified as true comprehensive sex education programs. Second, of these four studies, only two meet recommended scientific standards for evidence of program effectiveness.

An evidence review by Public Health England (2019) also summarizes the effectiveness of various interventions for preventing IPV in young people. In one primary study within the review, a nurse home visitation program was effective in reducing future IPV among pregnant women who had not yet experienced IPV. However, for women who had already experienced IPV, this intervention was ineffective and potentially harmful. In another study, given that adolescents exposed to domestic violence are at an increased risk for dating abuse, booklets were mailed to mothers who were former victims of domestic violence, to discuss with their adolescents who had been exposed to the abuse. This mother-led intervention was found to be effective in preventing IPV in adolescents who participated in the educational program. In a school-based intervention program aimed at preventing youth dating violence and sexual harassment, results showed the program was effective at preventing violence and harassment, regardless of gender or prior exposure histories. The intervention consisted of: 1) six educational sessions on laws, consequences of dating violence and sexual harassment, establishing

boundaries, and safe relationships; 2) use of school-based restraining orders; 3) greater faculty/security presence; and 4) posters to increase awareness and reporting. The review by Public Health England also summarized the most effective primary interventions identified by the US Community Preventive Services Task Force to prevent or reduce perpetration of IPV and sexual violence among youth in high schools. This information is presented below in Table 3.

From an intergenerational perspective, genetic and epigenetic researchers suggest targeting violence prevention efforts more upstream with interventions starting during fetal development, focusing on pregnant women who have a lifestyle that could affect the developing baby (e.g., no high school diploma, smoking, separated from father, young age, low income, suffers from depression) rather than focussing on aggressive males (Tremblay & Côté, 2019). Maternal behaviour impacts fetal brain development through various mechanisms that include expression of the child's genes (DNA methylation). This includes maternal lifestyle, in addition to physical and mental health during pregnancy. The mother is also more likely to be present with the baby in the postnatal period – a time of rapid brain development. The developing child requires care and education to learn how to control behaviour and emotions which may be more difficult for a mother who is young, single, and/or depressed. From this intergenerational perspective, interventions that do not start close to conception cannot impact the many casual pathways that are already in place during fetal development (Tremblay & Côté, 2019).

Table 3. Most effective primary interventions to prevent or reduce perpetration of IPV among high school youth, as identified by the US Community Preventive Services Task Force.

Strategy	Examples
Teach healthy relationship skills	• Exercises in social resilience aimed at body language, setting and respecting boundaries, intuition, standing up for oneself, and communication skills • Conflict management skills for dating
Promote social norms that protect against violence	• Web portal modules that include interactivity, didactic activities, and episodes of a serial drama • Bystander education and empowerment
Teach healthy relationship skills + Promote social norms that protect against violence	• Socio-emotional learning programs to teach healthy dating skills (conflict resolution) • Interactive activities that address dating violence norms, gender stereotyping, conflict resolution
Teach healthy relationship skills + Promote social norms that protect against violence + Create protective environments	• Identification of high-risk areas, with an increase in staff presence in those areas • Social marketing strategies • School-based teen dating violence prevention curricula to enhance skills and attitudes of healthy relationships and reduction of teen dating violence

(Public Health England, 2019)

7.2 Secondary and Tertiary Prevention

Pregnancy provides a window of opportunity for IPV detection and intervention because women often have repeated contact with healthcare providers (Comacchio et al., 2022; Román-Gálvez, Martín-Peláez, Fernández-Félix, et al., 2021). Women may develop trust with their provider(s), increasing the possibility of disclosing abusive situations (Comacchio et al., 2022). It is also a time when women may feel motivated to protect their developing child from harm.

7.2.1 Detection (secondary prevention)

Universal screening for IPV (i.e., using standardized questions in the same way for all patients) as a part of prenatal care is recommended by the American College of Obstetricians and Gynecologists, the US Preventive Services Task Force (Drexler et al., 2022; U.S. Preventive Services Task Force, 2019), and quite unanimously throughout the literature[4] (Ankerstjerne et al., 2022; Comacchio et al., 2022; Edwards et al., 2021; Gopalan et al., 2022; McCauley et al., 2022; Robinson et al., 2019; U.S. Preventive Services Task Force, 2019). Although some researchers have found evidence to support the practice and women have been found to prefer it (Hegarty et al., 2022), most evidence does not support universal screening for IPV in pregnancy due to the lack of effectiveness in reducing re-victimization and improving adverse pregnancy outcomes (Reyes et al., 2021; Stanhope et al., 2023; U.S. Preventive Services Task Force, 2019; VEGA Family Violence Project, 2015-2020).

With funding provided by the Public Health Agency of Canada, the VEGA (Violence, Evidence, Guidance, and Action) Project developed evidence-based guidance and educational resources to assist Canadian healthcare and social service providers to recognize and respond to family violence. These resources were developed in collaboration with 22 national organizations[5], including the Society of Obstetrics and Gynaecologists of Canada and the Royal College of Physicians and Surgeons of Canada. VEGA's recommendation on detection of IPV is as follows:

"Universal screening or routine inquiry for those who have experienced intimate partner violence is not recommended. (World Health Organization recommendation and subsequent supporting randomized controlled trial-level evidence).

Identification of intimate partner violence through case-finding is recommended. Healthcare and social service providers should ask about intimate partner violence when potential indicators are present, including:
1) signs and symptoms directly related to intimate partner violence exposure (injuries,

[4] Validated screening tools used to detect P-IPV most referenced in the literature are listed in Appendix 2.
[5] VEGA's National Guidance and Implementation Committee consists of representatives from 22 organizations who identified priority topics, provided recommendations, provided feedback on materials, and engaged in knowledge mobilization and uptake activities.

depressive or post-traumatic stress symptoms, chronic pain);
2) behavioural indicators or cues from abused adults (e.g., repeatedly cancelling visits, increasing use of health services, deferring to a partner during a visit, offering an implausible explanation for a physical injury) and/or indicators that suggest an abusive partner (always present, answering for partner, other controlling behaviour); and
3) specific evidence-based risk indicators (e.g., alcohol/drug misuse, recent separation, financial strain, expressing traditional gender norms).

Particularly in the context of perinatal care, mental health, and addictions care, healthcare and social service providers should consider asking about intimate partner violence at assessment and subsequently as needed." (VEGA Family Violence Project, 2015-2020)

In general, studies exploring women's preferences regarding IPV disclosure suggest that most women are accepting of enquiries regarding violence as long as healthcare professionals are nonjudgmental, compassionate (Drexler et al., 2022; Hegarty et al., 2022), there is privacy and confidentiality, and disclosures lead to positive consequences (Comacchio et al., 2022). Women do not want the experience of providers being critical of their choices or encouraging them to leave their violent partner (Drexler et al., 2022).

7.2.2 Treatment and Management (secondary and tertiary prevention)

Upon detection of IPV, interventions discussed in the literature focus on the safety of the mother and reducing re-victimization to improve maternal and infant health outcomes. Comparing findings from the literature on the effectiveness of interventions is difficult, given differences in how researchers define and categorize interventions as well as the intensity and duration in which they are provided. Generally, IPV interventions for pregnant women discussed in the literature are forms of advocacy aimed at empowering victims and linking them to community resources such as shelters, housing, informal counselling, and legal services.

Upon updating a Cochrane review, VEGA developed recommendations[6] on interventions for pregnant women experiencing IPV. Based on the evidence, VEGA recommends that women who have disclosed IPV be offered brief to medium duration counselling and advocacy/support (VEGA Family Violence Project, 2015-2020). Contrary to this, other systematic reviews have found brief interventions to be generally ineffective, instead recommending ongoing support services for pregnant women experiencing IPV (Reyes et al., 2021; U.S. Preventive Services Task Force, 2019).

The inconsistency in reported effectiveness of various interventions was also found in a large Cochrane review by Rivas et al. (2019). In this review, the effectiveness of different

[6] VEGA's Intimate Partner Violence Systematic Review Summary. Additional details are available in VEGA's educational resources for Canadian healthcare providers, available for free upon registration.

advocacy interventions for abused women are summarized, with nine studies having pregnant women exclusively as the study population. In seven of these studies, various forms of advocacy ranging from standard video advice, brief therapy, and support from lay mentors to counselling provided by trained professionals, were analyzed with mixed results on their effectiveness. Only one of the eight studies found an intervention to have clear benefits. In this intervention, the control group received standard, prenatal home visitation while the intervention group was enrolled in the Domestic Violence Enhanced Home Visitation Programme (DOVE). In the DOVE program, participants received standard care in addition to three prenatal and postnatal empowerment sessions to prevent P-IPV. Women who participated in the DOVE program had a statistically significant reduction in IPV victimization up to 24 months postpartum. One of the nine studies in the Cochrane review was carried out in a prenatal clinic and found that when the abuse was severe to start with, some interventions prompted the perpetrator to increase the abuse.

The importance of support for women who experience P-IPV is described by the women themselves in one qualitative metasynthesis by Robinson et al. (2019). The positive role of various support networks such as mothers, grandmothers, previous partners, medical professionals, shelter staff, and people in chat rooms and internet groups are highlighted. Many of these networks developed because of the pregnancy and helped women throughout their pregnancies. Participants who did not have social networks beyond their abusive partner expressed preference in remaining in the relationship over being alone.

The COVID-19 pandemic accelerated the adoption of virtual care in Canada. Given the convenience, flexibility, and time and cost-savings of virtual care, patients and healthcare providers will continue to be interested in its use. There is emerging and promising evidence on the effectiveness of technology-based interventions in enhancing the health and well-being of women experiencing IPV (Cantor et al., 2023; Emezue et al., 2022). Technology-based therapies come in many forms including mobile apps, interactive websites, text message interventions, online support groups, and telehealth services.

8. Discussion

IPV against women is a major public health problem, a gender inequality issue, and a human rights violation. IPV affects 1 in 3 women worldwide, with the incidence and severity of the violence at times increasing during pregnancy. There are significant and potentially long-lasting impacts of P-IPV on the mother and her unborn child, including maternal depression and anxiety, substance abuse, low birth weight, preterm birth, and most gravely - maternal and infant death. Children born to mothers who experience P-IPV are more likely to have behavioural problems and become an aggressor or victim of IPV later in life, perpetuating the cycle of violence and trauma. In addition to previous exposure to abuse, risk factors for P-IPV, on either side of the violence, include low education, unemployment, and mental health disorders.

Beyond the personal and health effects experienced by victims, IPV results in significant economic and societal costs. Women may experience the inability to work, leading to lost wages for themselves and employers, in addition to costs borne by the healthcare system, justice system, and social services.

Preventing, recognizing, and responding to violence against women requires a multi-sectoral approach, with the health sector playing a role. Pregnancy provides a window of opportunity when women frequently interact with the healthcare system. Prenatal care providers, trained in recognizing the symptoms of IPV, can respond appropriately. There is a growing body of evidence on interventions to prevent violence from occurring in the first place, as well as those to prevent re-victimization, thereby improving maternal and infant health outcomes. Prevention programs effective in breaking the generational cycle of abuse and prevent violence from occurring in the first place would alleviate tremendous unnecessary suffering of women and children.

Limitations of this review include the likelihood of overlap of primary study results across systematic reviews. In addition, the included articles were not critically appraised to determine the quality of the reviews and strength of the evidence. Studies conducted with women from low- and middle-income countries were excluded because of differences from high-income countries in patriarchal social norms; however, it is likely that quality research was missed because of this decision.

9. Conclusion

The evidence on the societal recognition of the importance of P-IPV, the prevalence, risk factors for perpetration and victimization, adverse pregnancy outcomes, and the economic impact of IPV is generally well documented and conclusive in the literature. There is no scientific debate in the literature with researchers generally in agreement on these topics. The research and knowledge regarding intergenerational effects of P-IPV (i.e., the mechanism by which P-IPV is linked with short- and long-term child outcomes) is growing but are not currently well understood. Authors theorize and speculate on the “how” and “why”, but there is insufficient evidence to draw conclusions.

Intervention strategies to prevent IPV are currently a major area of disagreement within the literature. Evidence is mixed on the most effective ways for care providers to detect and manage IPV, with recommendations varying between countries. The VEGA Family Violence Project’s free evidence-based pan-Canadian guidance and educational resources were developed for healthcare and social service providers, and are recommended to its members by professional societies across the country.

To identify the best strategies and targets for IPV prevention, it is important to understand the mechanism by which behaviours such as violence transfer from one generation to the next. Further research on the pathway(s) of intergenerational transmission is needed.

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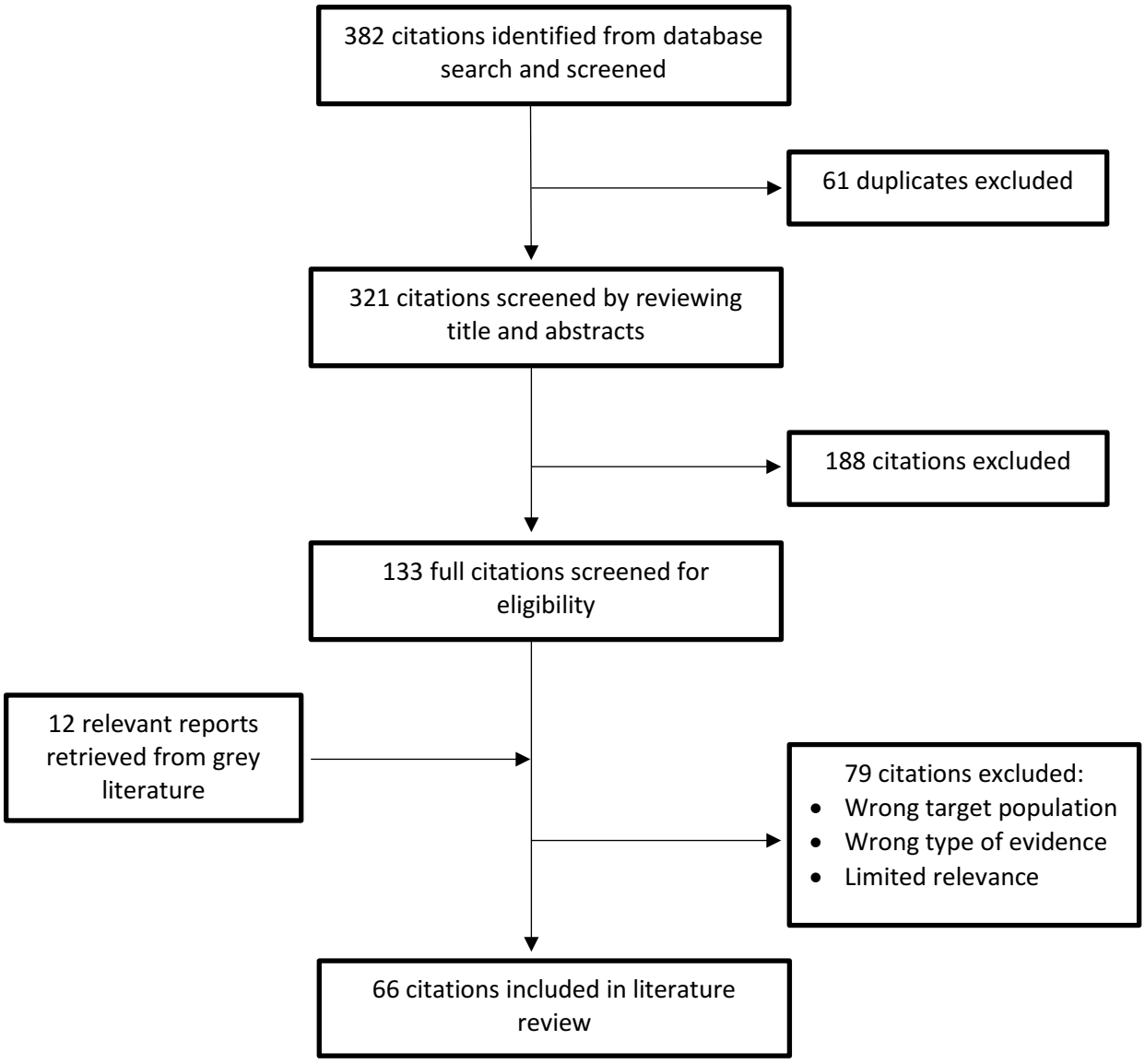
Appendix 1. Database Search Terms

Trip search terms: "intimate partner violence" AND pregnancy from_date:2019

PubMed search and MeSH terms: ("domestic violence"[MeSH Terms:noexp] OR "intimate partner violence"[MeSH Terms] OR "violence"[MeSH Terms:noexp] OR "physical abuse"[MeSH Terms] OR "rape"[MeSH Terms] OR "emotional abuse"[MeSH Terms] OR "violen*"[Title/Abstract] OR "abus*"[Title/Abstract] OR "assault*"[Title/Abstract]) AND ("spouses"[MeSH Terms] OR ("partner*"[Title/Abstract] OR "spous*"[Title/Abstract] OR "husband*"[Title/Abstract] OR "wife*"[Title/Abstract] OR "wives"[Title/Abstract] OR "commonlaw*"[Title/Abstract] OR "common law*"[Title/Abstract] OR "couple"[Title/Abstract] OR "couples"[Title/Abstract] OR "marriage*"[Title/Abstract] OR "marital"[Title/Abstract])) AND ("pregnant women"[MeSH Terms] OR "pregnancy"[MeSH Terms] OR "prenatal care"[MeSH Terms] OR "perinatal care"[MeSH Terms] OR "prenatal injuries"[MeSH Terms] OR ("pregnan*"[Title/Abstract] OR "gestat*"[Title/Abstract] OR "matern*"[Title/Abstract] OR "prenatal*"[Title/Abstract] OR "pre natal*"[Title/Abstract] OR "antenatal*"[Title/Abstract] OR "ante natal*"[Title/Abstract] OR "perinatal*"[Title/Abstract] OR "peri natal*"[Title/Abstract])) AND (("meta analysis"[Publication Type] OR "review"[Publication Type] OR "systematic review"[Filter]) AND 2019/01/01:2023/12/31[Date - Publication])

Appendix 2. Selection of Included Studies



Appendix 3. Validated Screening Tools Used to Detect IPV Most Commonly Referenced in the Literature

Name of Tool	Cited by
Humiliation, Afraid, Rape, Kick Instrument (HARK)	(Drexler et al., 2022; Hegarty et al., 2022; U.S. Preventive Services Task Force, 2019)
Hurt/Insult/Threaten/Scream (HITS)	(Ankerstjerne et al., 2022; Comacchio et al., 2022; Drexler et al., 2022; U.S. Preventive Services Task Force, 2019)
Extend Hurt/Insult/Threaten/Scream (E-HITS)	(Drexler et al., 2022; U.S. Preventive Services Task Force, 2019)
Partner Violence Screen (PVS)	(Drexler et al., 2022; U.S. Preventive Services Task Force, 2019)
Woman Abuse Screening Tool (WAST)	(Drexler et al., 2022; Emezue et al., 2022; Hegarty et al., 2022; U.S. Preventive Services Task Force, 2019)
World Health Organization Domestic Violence Module	(Lamaro et al., 2023; Pastor-Moreno, Ruiz-Pérez, Henares-Montiel, & Petrova, 2020)
Abuse Assessment Screen (AAS)	(Andreu-Pejó et al., 2022; Ankerstjerne et al., 2022; Comacchio et al., 2022; Hegarty et al., 2022; Lamaro et al., 2023; Pastor-Moreno, Ruiz-Pérez, Henares-Montiel, & Petrova, 2020)