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Barriers to effective Intimate Partner Homicide Prevention

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An abstract of A thesis submitted to the Faculty of the Rollins School of Public Health of Emory University in partial fulfillment of the requirements for the degree of Master of Public Health in Department of Global Health 2017

Abstract

Barriers to Effective Intimate Partner Homicide Prevention

By Monica Garcia

Background: Georgia is one of the ten states with highest mortality rates for intimate partner homicides (IPH). From 2010 to 2014 there were 226 IPH, leaving a tremendous impact over the survivals and their communities. Due to the characteristics of IPV, this kind of homicides are preventable. The objective of this study was to determine the prevalence and characteristics of IPH in Georgia during 2014.

Methods: Female homicides data from 2014 was analysed using the Georgia Violent Death Reporting System. Characteristics of this events were examined using quantitative and qualitative methods.

Results: Over the 54 cases that we analysed, more than half of the victims (52%) were Black/African American, and 43% White. The femicides perpetrated by intimate partner differed significantly from the femicides perpetrated by other individual (IPH=73% vs. other 16%, p=0.0001). During 2014, women in Georgia had 14 times higher probability of being killed by intimate partner than the odds of being killed by other perpetrator (OR 14.45: 95% CI 8.36, 24.98).

Conclusion: The characteristics of IPH share important similarities with other studies in regard of characteristics such as perpetrator's alcohol or drug consumption, gun access, women's intention to leave the relation, and home occurrence. However, women murdered by intimate partners in Georgia showed differences compared to what was pointed out by the literature in terms of age, education, and employment status.

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CHAPTER 1. COMPREHENSIVE REVIEW OF LITERATURE

The term *Intimate Partner Violence* (IPV) describes physical, sexual, or psychological harm by a current or former partner or spouse (World Health Organization, 2010). This violence can have severe and long-term health consequences. Victims or survivors of IPV are more likely to report a range of negative mental and physical health outcomes that are both acute and chronic in nature (Breiding & Armour, 2015). IPV, isolation, intimidation psychological abuse, and physical violence may increase the risk of mental illness, especially depression, generalized anxiety, suicidal ideation, and posttraumatic stress disorder (Hink, Toschlog, Waibel, & Bard, 2015; Hirth & Berenson, 2012) and sexual and reproductive health like HIV/STIs and unintended pregnancy (Hill, Pallitto, McCleary-Sills, & Garcia-Moreno, 2016).

During the past three decades, there has been a dramatic transformation in the response to IPV across all sectors of society, including public opinion and systems of criminal justice, social services, and health care. Changes in the criminal justice system includes stricter law enforcement, policies of mandatory arrest, training for law enforcement and judges on the dynamic of domestic violence, increased penalties, and domestic violence courts. Social services and advocacy efforts have created domestic violence hotlines and shelters. Public opinion has shifted viewing violence as a crime, not as a private family matter. As a result, the demand for services and policies to address the complexity of IPV has increased. Likewise, the incidence of Intimate Partner Homicide (IPH) has dramatically decreased since the mid- 1970s. However, the proportion of femicide by male intimate partners has increased. From 1976 to 1996, the percentage of Intimate Partner

homicides with female victims increased from 54% to 70% (Campbell, Glass, Sharps, Laughon, & Bloom, 2007).

The United States has a high prevalence of IPV. Estimates from the National Intimate Partner and Sexual Violence Survey (Black, 2011), indicate that more than 74 million people in the United States have experienced IPV (physical violence, psychological aggression, including coercive tactics, sexual violence, staking) at some point in their lives, and more than 12 million in the previous 12 months. IPV disproportionately affects women, especially racial/ethnic minorities (Lyons, Fowler, Jack, Betz, & Blair, 2016; Stockman, Hayashi, & Campbell, 2015). Those minorities are reported as Black/African American, Hispanic/Latina, Native American/Alaska Native, Asian American; some of them are immigrants (Lilly & Graham-Bermann, 2009).

One in three women in the United States have experienced rape, physical violence, and/or stalking, and one in four women (24.3%) a more severe physical violence by an intimate partner. The impact in women experiencing IPV is reflected in fearful, concerns about her safety, and post-traumatic stress disorder (PTSD) (Black, 2011).

IPV Health Consequences:

IPV against women is a serious concern with adverse physical, mental, sexual and reproductive health outcomes. IPV triggers a sequence of major problems. The physical impact of IPV is well known. The perpetrators attack their female partners in different ways, including pushing, slapping, punching, kicking, forced sex, and strangling, which result in injuries that might include bruises, cuts, split skin with profuse bleeding, broken teeth, black eyes, swellings, broken limbs, hair-line fractures, and miscarriages. Some injuries may be internal such as sprains and muscular pain (Munjal, 2012).

Physical violence usually is accompanied by emotional and verbal abuse: insults, offenses, discrimination towards them and their family members, or threatens to take their children away. This creates emotional and psychological harm producing stress and significant mental pressure on the women. Victims often suffer from depression, sleep difficulties, isolation, low self-esteem, anxiety, and negative feelings such as disappointment, failure, dejection, and sadness (Coker et al., 2002).

Abused women have increased relative risks of psychosocial disorders (substance use, family and social problems, depression, anxiety, tobacco use); musculoskeletal difficulties (degenerative joint disease, low back pain, trauma related joint disorders, cervical pain, acute sprains and strains); and female reproductive problems (menstrual disorders, vaginal infections). Women who experience IPV increases three times the risk of being diagnosed with a sexually transmitted disease, and two times the risk of lacerations as well as increased risk of acute conditions related to cardiovascular, gastrointestinal, gynecological disorders like respiratory tract infection, gastroesophageal reflux disease, abdominal pain, urinary tract infections, headaches, and contusions/abrasions (Bonomi et al., 2009; Whiting, Liu, Koyuturk, & Karakurt, 2016).

IPV has further consequences in children who grow up in homes where domestic violence takes place. Abuse affects children cognitively and emotionally when they witness the violence between their parents, are more likely to be physically abused, and to become perpetrators or abusive parents when adults, finding such violent behavior acceptable, perpetuating the cycle of domestic violence (Munjal, 2012). Children who witness IPV and/or intimate partner homicide are at risk for being fatally wounded during IPV incidents (Sillito, 2011). It is common for children growing up in homes where domestic violence occur to witness the abuse. The National Survey of Children's Exposure to Violence found one in fifteen (1:15) children exposed to intimate partner violence. Children are exposed to violence when they witness physical attacks, heard it, or see the injuries later (Finkelhor, Turner, Shattuck, Hamby, & Kracke, 2009). This experiences have a negative impact in children's emotions and affects their normal living. Children are more likely to experience anxiety, sleeplessness, nightmares, difficulty concentrating, increased aggression, increased anxiety about being separated from a parent, and increased worry about the safety of a parent (Aszman & Thompson, 2015).

The problem often is not revealed in women who visit care facilities in busy Emergency Departments (ED). The Rhodes, et al. study suggests that as many as 72% of women with a history of IPV are not identified when they visit the ED for medical issues (Rhodes et al., 2011). Providers are reluctant to ask about IPV, either because they are unsure of how to respond or they lack access to resources for referral. Another study of IP femicide in 11 cities in the United States (Sharps et al., 2001), found that although only 5% of victims had gone to a domestic shelters, 42% of the victims had been seen in the health care system for some ailment during the year before the incident. Most survivor women (88%) had sought help at hospital emergency department, hospital

inpatient units, or ambulatory care settings for injuries specifically resulting from the abuse by a current former partner.

Power & Control Dynamics

IPV against women results from men's exertion of control and power to dominate the relationship or his partner. Victims of IPV are in a disadvantageous and vulnerable position to aggressor's violence and control when they are a couple that share a household (Hester, 2013). The perpetrator seeks increased control in different ways, isolation being a common first step. Dobash and Dobash, observed that women become dependent on the perpetrator emotionally, financially, or both, when in her role as a wife, she loses control over her life, the outside world, and becomes submissive to her partner's expectations and demands (Dobash, 1979).

Jealousy, suspicious, possessiveness, superiority, and authority becomes emotional abuse that reinforces the control over women. When there is deviance from or non-compliance with such expectations and demands, perpetrator punishes it physically. This can range from pushing the woman, to throwing things around (primarily hers), to brutally battering her. Perpetrators may exert further control while battering the woman, isolating her from help of family or friends. Repeated physical assaults lead the victim to live in fear and anxiety and feel powerless and dependent (Dobash, 1979). Those women in fear of their partners have to negotiate safety by giving into the demands of the perpetrator (Hester, 2013).

Perpetrators often abuse their victims economically as well. The women are likely to suffer from financial hardship and economic abuse if they do not have access to monetary resources or receive only a meager amount from their partners, especially when the women are not otherwise economically independent. Perpetrators may insist on knowing where each penny is spent in order to maintain financial control. Most violence is strategic and contributes to the old hierarchical order that wants to perpetrate the subjugation of women. Men resort to violence when their hierarchy appears to be under threat by their partner (Dobash, 1979).

Along with emotional and physical dominance through violence, many victims experience stalking. This is an insidious, intentional, and deliberate conduct to intimidate and interfere in another person's life. This kind of intrusion in victim's life produce anguish, distress, fear, and concern for safety (Logan & Walker, 2015). Stalking by current or former intimate partners is associated with an increased risk of homicide than IPV. Stalking occurred in most femicides of intact marriages and relationships where there was no history of IPV (Campbell et al., 2003). This kind of abuse exists not only when the perpetrators and the victims are in a relationship but also post-separation. It is also associated with physical assault, sexual assault, explicit threats, and property damage (Logan & Walker, 2015). According to the National Intimate Partner Violence and Sexual Violence Survey, one in six women in the United States (19.3 million) had experienced stalking by someone close to her 12 months prior to taking the survey. Of those women, 66.2% the perpetrator was her current or former intimate partner (Basile et al., 2011).

There is a significant association between IPV and perpetrator drug-alcohol use, victim pregnancy, abuse type (physical and/or non-physical), weapon involvement (guns, rifles, knives, or vehicles),

and arrest of the perpetrator. However, victim pregnancy is one of the strongest predictors of intimate partner violence, for increasing violence severity, and for intimate femicide. Likewise, perpetrator drug or alcohol use is a consistent predictor of intimate partner violence (Bonomi, Trabert, Anderson, Kernic, & Holt, 2014; Naimi et al., 2016).

Clinging an abusive relationship

There is not a certain explanation about why women do not leave an abusive relationship. Some of the explanations might be that the victim may fear retaliatory attacks, may not have a place to go, may fear losing her children, may not be financially able to support herself or her children, or may be hopeful about the relationship will improve. The assumption that violence will stop if a factor changes in the life of the perpetrator, like getting a job, is known as "paradox of love", that presumes a level of optimism on the part of the women when she thinks she is satisfying her partner's expectations. Staying in the relationship is therefore a vicious cycle to survive through all the harshness and violence she faces by clinging to the hope and optimism that, if she does things better, the situation will change (Hanna, 1998)

The same approach is theorized in the "Cycle of violence" that starts from a tension-building phase with minor physical and verbal abuse, goes through an acute battering phase, and finishes with a makeup or honeymoon phase. The honeymoon phase daunts an abused woman to break away and the cycle repeats itself, making a woman so fearful for experiencing cycles of violence that she no longer believes escape is possible (Loseke, Gelles, & Cavanaugh, 2005).

Finally, the "Multifactor ecological perspective" explains that a women may keep a violent relationship as a result of a combination of factors, including family history of victimization (e.g., unhealthy experiences or attachments in childhood that may develop the acceptance of violence in adulthood), personal relationships, societal norms, and social and cultural factors (Bonomi et al., 2014; Loseke et al., 2005)

Victims of domestic violence give many reasons for not reporting their situations. A survey, performed in Texas, showed that almost half of the victims did not report the incident of violence because they believed nothing could or would be done about it. Almost all the women who answered the survey were afraid their intimate partner would become more dangerous if they reported the abuse (Bickerstaff, 2010).

Leaving the abuser can be dangerous. Because most men use violence as a tactics to maintain power and control over their intimate partners, men are most dangerous shortly after the breakup of a relationship because they consider it as a loss of power. It is in the immediate days and weeks after a breakup that most domestic murders occur (Campbell et al., 2003; Donileen R. Loseke, 2005).

Influence of structural features of communities on IPV

Binomi et al. attempt to explain the risk factors for intimate partner violence perpetration and victimization across the role of structural features of communities (e.g., concentrated poverty), social processes (e.g., norms and sanctions concerning the use of violence), and available resources

that could be linked to violence occurrence. Binomi concluded that socioeconomically disadvantaged neighborhoods characterized by poverty, low income, high unemployment, low educational achievement, and residential instability elevates rates of IPV and IPH (Bonomi et al., 2014).

Social Disorganization theory posits that structural disruption within a community (e.g., concentrated poverty, neighborhood income is associated with intimate partner violence) diminishes the community's ability to regulate the occurrence of crime because the necessary social bonding/connections, mutual trust, and norms of reciprocity are impaired. Prior studies found that collective efficacy — "people in the community trust one another, help each other, and feel responsible for one another"— within neighborhoods mediates the relationship between neighborhood poverty and lethal abuse, documenting lower rates of intimate partner homicide and nonlethal partner violence against women (Bonomi et al., 2014).

Similar conclusions from U.S.-based samples research have demonstrated a relationship between physical IPV against women and situations of neighborhoods with high unemployment or concentrated disadvantage (female-headed households, non-white, public assistance, and living below the poverty line). In contrast, communities with solidarity among its members (social cohesion) and/or social control in a community are protective factors in relation to IPV against women (Vanderende, Yount, Dynes, & Sibley, 2012).

O'Campo et al. developed a qualitative study to further expand a theoretical understanding of community processes that could influence IPV cessation or prevalence. Their study concluded that

there are community characteristics that could protect against violence perpetration, such as the presence of gathering places including churches, playgrounds, and IPV shelters and the presence of "community enrichment resources" (e.g., access to public health facilities, community centers, women's groups, and recreation centers for children) (O'Campo, Burke, Peak, McDonnell, & Gielen, 2005).

Intimate partner homicides - IPH

The most extreme form of IPV is intimate partner homicide (IPH). Also known as *Femicide*, an expression that indicates the lethal event of violence against women for gender based reasons (Stockl et al., 2013). In particular, the greatest risk for a woman to be killed is from a current or former intimate partner. The major risk factor for intimate partner homicide, is intimate partner violence. In 2007, intimate partners committed 14% of the U.S. homicides, and 70% of those victims were females (Campbell et al., 2003). The National Violent Death Reporting System reported 4.470 death persons from 2003 to 2009 in 16 states of the U.S. as of those 80% were intimate partners and 20% corollary victims (family members or acquaintances) (Smith, Fowler, & Niolon, 2014).

Other important risk factors that significantly elevate danger over prior abuse are estrangement, perpetrator gun ownership, perpetrator unemployment, a highly controlling abuser, threats to kill, threats with a weapon, forced sex, violence during pregnancy, attempted strangulation, a stepchild in the home and the perpetrator avoiding arrest for domestic violence (Campbell et al., 2007).

In 2013, there were 5.2 homicides per 100.000 population (age adjusted). Although four times as many men are killed by homicide than women in the United States, femicide remains a major problem, more than 2,600 U.S. women were murdered in 2014. Perhaps because femicides are less common than homicides of men, its rates, causes, and consequences are understudied (Muftic & Baumann, 2012; Siegel & Rothman, 2016).

Siegel and Rothman found that gender specific homicide victimization rates were correlated with state level firearm ownership. They found that, nearly 90% of femicide is perpetrated by persons who are known to the victim (i.e., a family member, intimate partner, or other acquaintance). Moreover, the homicide victimization rate explained by firearm ownership was substantially higher for females compared with males (Siegel & Rothman, 2016).

In 2008 about 45% of female homicides were committed by an intimate partner (Cooper & Smith, 2011). Women in the United States are murdered by current or intimate partner approximately nine times more often than by a stranger. Femicide is the leading cause of death in the United States among young African American women aged 15 to 45 years and the seventh leading cause of premature death among women overall (Campbell et al., 2003). In 2012 the femicide incident rate was 1.16 per 100,000 in the country. For that year, Georgia was among the top ten states with the highest mortality rates for intimate partner homicides with 1.66 per 100,000, exceeding the national rate. According to the Injury Prevention and Control data and statistics of the CDC, for the next three consecutive years (2010 to 2013) there were 168 IPH in the state of Georgia (Georgia Department of Public Health, 2014).

The purpose of the study is to characterize the known circumstances surrounding intimate partner homicides in the State of Georgia as described in police and coroner accounts from 2014 to identify barriers to effective IPV homicide prevention.

CHAPTER 2. MANUSCRIPT

Barriers to Effective Intimate Partner Homicide Prevention

Monica Garcia, MPH. Hubert Department of Public Health, Rollins School of Public Health Dabney Evans, PhD, MPH. Assistant Professor, Rollins School of Public Health Emory University, Atlanta, GA

ABSTRACT

Background: Georgia is one of the ten states with highest mortality rates for intimate partner homicides (IPH). From 2010 to 2014 there were 226 IPH, leaving a tremendous impact over the survivals and their communities. Due to the characteristics of IPV, this kind of homicides are preventable. The objective of this study was to determine the prevalence and characteristics of IPH in Georgia during 2014.

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Conclusion:

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Key words: femicide, intimate partner homicide, intimate partner violence, gender based homicide

INTRODUCTION

The term *Intimate Partner Violence* (IPV) describes physical, sexual, or psychological harm by a current or former partner or spouse (World Health Organization, 2010). This violence can have severe and long-term health consequences. Victims or survivors of IPV are more likely to report a range of negative mental and physical health outcomes that are both acute and chronic in nature (Breiding & Armour, 2015). IPV, isolation, intimidation psychological abuse, and physical violence may increase the risk of mental illness, especially depression, generalized anxiety, suicidal ideation, and posttraumatic stress disorder (Hink et al., 2015; Hirth & Berenson, 2012) and sexual and reproductive health like HIV/STIs and unintended pregnancy (Hill et al., 2016).

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There is not a certain explanation about why women do not leave an abusive relationship. Some of the explanations might be that the victim may fear retaliatory attacks, may not have a place to go, may fear losing her children, may not be financially able to support herself or her children, or may be hopeful about the relationship will improve.

Victims of domestic violence give many reasons for not reporting their situations. A survey, performed in Texas, showed that almost half of the victims did not report the incident of violence because they believed nothing could or would be done about it. Almost all the women who answered the survey were afraid their intimate partner would become more dangerous if they reported the abuse (Bickerstaff, 2010).

Leaving the abuser can be dangerous. Because most men use violence as a tactics to maintain power and control over their intimate partners, men are most dangerous shortly after the breakup of a relationship because they consider it as a loss of power. It is in the immediate days and weeks after a breakup that most domestic murders occur (Campbell et al., 2003; Donileen R. Loseke, 2005).

From U.S.-based samples research, it was demonstrated a relationship between physical IPV against women and situations of neighborhoods with high unemployment or concentrated disadvantage (female-headed households, non-white, public assistance, and living below the poverty line). In contrast, communities with solidarity among its members (social cohesion) and/or social control in a community are protective factors in relation to IPV against women (Vanderende et al., 2012).

O'Campo et al. developed a qualitative study to further expand a theoretical understanding of community processes that could influence IPV cessation or prevalence. Their study concluded that there are community characteristics that could protect against violence perpetration, such as the presence of gathering places including churches, playgrounds, and IPV shelters and the presence of "community enrichment resources" (e.g., access to public health facilities, community centers, women's groups, and recreation centers for children) (O'Campo et al., 2005).

The United States has a high prevalence of IPV. Estimates from the National Intimate Partner and Sexual Violence Survey (Black, 2011), indicate that more than 74 million people in the United States have experienced IPV (physical violence, psychological aggression, including coercive tactics, sexual violence, staking) at some point in their lives, and more than 12 million in the previous 12 months. IPV disproportionately affects women, especially racial/ethnic minorities (Lyons et al., 2016; Stockman et al., 2015). Those minorities are reported as Black/African American, Hispanic/Latina, Native American/Alaska Native, Asian American; some of them are immigrants (Lilly & Graham-Bermann, 2009).

One in three women in the United States have experienced rape, physical violence, and/or stalking, and one in four women (24.3%) a more severe physical violence by an intimate partner. The impact in women experiencing IPV is reflected in fearful, concerns about her safety, and post-traumatic stress disorder (PTSD) (Black, 2011).

The most extreme form of IPV is intimate partner homicide (IPH). Also known as *Femicide*, an expression that indicates the lethal event of violence against women for gender based reasons (Stockl et al., 2013). In particular, the greatest risk for a woman to be killed is from a current or former intimate partner. The major risk factor for intimate partner homicide, is intimate partner violence. In 2007, intimate partners committed 14% of the U.S. homicides, and 70% of those victims were females (Campbell et al., 2003). The National Violent Death Reporting System reported 4.470 death persons from 2003 to 2009 in 16 states of the U.S. as of those 80% were intimate partners and 20% corollary victims (family members or acquaintances) (Smith et al., 2014).

In 2013, there were 5.2 homicides per 100.000 population (age adjusted). Although four times as many men are killed by homicide than women in the United States, femicide remains a major problem, more than 2,600 U.S. women were murdered in 2014. Perhaps because femicides are less

common than homicides of men, its rates, causes, and consequences are understudied (Muftic & Baumann, 2012; Siegel & Rothman, 2016).

Siegel and Rothman found that gender specific homicide victimization rates were correlated with state level firearm ownership. They found that, nearly 90% of femicide is perpetrated by persons who are known to the victim (i.e., a family member, intimate partner, or other acquaintance). Moreover, the homicide victimization rate explained by firearm ownership was substantially higher for females compared with males (Siegel & Rothman, 2016).

In 2008 about 45% of female homicides were committed by an intimate partner (Cooper & Smith, 2011). Women in the United States are murdered by current or intimate partner approximately nine times more often than by a stranger. Femicide is the leading cause of death in the United States among young African American women aged 15 to 45 years and the seventh leading cause of premature death among women overall (Campbell et al., 2003). In 2012 the femicide incident rate was 1.16 per 100,000 in the country. For that year, Georgia was among the top ten states with the highest mortality rates for intimate partner homicides with 1.66 per 100,000, exceeding the national rate. According to the Injury Prevention and Control data and statistics of the CDC, for the next three consecutive years (2010 to 2013) there were 168 IPH in the state of Georgia (Georgia Department of Public Health, 2014).

The purpose of the study is to characterize the known circumstances surrounding intimate partner homicides in the State of Georgia as described in police and coroner accounts from 2014 to identify barriers to effective IPV homicide prevention.

METHODS

The Georgia Violent Death Reporting System (GA-VDRS), is the data-base surveillance system that capture all violent death in Georgia, established in 2003 as part of the National Violent Death Reporting System (NVDRS), maintained by the U.S. Centers for Disease Control and Prevention (CDC). The information that makes up the system comes from Death Certificates, Incident Reports, Supplemental Homicide Reports, Child Fatality Review, and Emergency Medical Services. Information from this sources about each violent death includes circumstances related to the homicide such as, cause of death, the relationship between the perpetrator and the victim, previous criminal records, whether the deceased suffered depression or major life stresses, alcohol or drug use, and whether the event was a part of a multiple homicide or a homicide followed by suicide.

Georgia Department of Public Health coded the data into GA-VDRS by trained abstractors who manually extract the information from the sources mentioned above. The records include an incident narrative based from the coroner, medical examiner and police reports' descriptions of circumstances leading to the death. The circumstances are defined as events that preceded or occurred during the incident and may have contributed to the infliction of a fatal injury.

Female homicides data of 2014 was obtained from GA-VDRS to examine the cases that fulfilled the CDC definition of IPV. The definition includes physical violence, sexual violence, stalking, or physiological aggression by a current or former intimate partner. We reviewed the femicide cases based on circumstances related to the death and relationship between the victim and perpetrator. Excluded cases were those that involved sex or drugs, same sex couples and incidents motivated by a desire to end the suffering of terminally ill love one.

Variables information included of women's demographic and socioeconomic characteristics included age, race/ethnicity, level of education, and employment status. Manner of death, injury location, time, circumstances like mental health and substance abuse, type of weapon, victim-suspect relationship, and incident type (single homicide, homicide followed by suicide, or multiple homicide) were also examined.

We manually reviewed the narratives of each case to obtain supplementary information. The information from narratives were qualitatively codified and later added to the data file to be analyzed using SAS (9.4). Information pooled from narratives about each violent death included suspect race, gender and age of the suspect, criminal charges or protection order from previous IPV incidents, additional perpetrator history relevant to the crime, motivation and presence of other victims like children.

The Emory University Review Board determined the study to be IRB-exempt because it is an analysis of secondary data and all data were de-identified prior to analysis.

In Georgia, 646 homicides took place during 2014 (Online Analytical Statistical Information System - OASIS). Of those, a woman was the victim 23% (149 cases) of the time. Among these homicides, 58 were perpetrated by an intimate partner. Four cases did not meet the inclusion criteria and were excluded from the analysis. Of the remaining 54 femicides cases, the mean age of the victims was 41.6 years (SD=13.86, range 30-51 years), Table 1.

Characteristics	Victims (n= 54)
Age, mean (SD)	41.6 (13.86)
Race, ethnicity, n (%)	
Black/African American	28 (52%)
White	23 (43%)
Other	3 (5%)
Relationship, n (%)	
Husband	32 (59%)
Boyfriend	16 (30%)
Ex-husband	2 (4%)
Ex-boyfriend	3 (5%)
No specified current or ex	1 (2%)
Weapon used, n (%)	
Firearm	33 (61%)
Sharp instrument	8 (15%)
Blunt instrument	2 (4%)
Strangulation	6 (11%)
Personal weapon	1 (1%)
Motor vehicle	1 (1%)
Unknown	3 (6%)
Incident category, n (%)	
Single homicide	31 (57%)
Homicide follow by suicide	23 (43%)
Multiple Homicide	
Marital Status, n (%)	
Married	32 (59%)
Never married	11 (20%)
Divorce	10 (19%)
Separated	1 (2%)

Table 1. Sociodemographic characteristics of IPH victims

The femicides perpetrated by intimate partner differed significantly from the femicides perpetrated by other individual (IPH=73% vs. other 16%, p=0.0001). During 2014, the odds of femicide among intimate partners is 14 times higher than the odds of femicide among other killings (OR 14.45: 95% CI 8.36, 24.98).

More than half of the victims (52%) were Black/African American, and 43% White, and just a few cases (3.5%) belong to another race or ethnicity. The age of females murdered by an intimate partner has a different distribution from those killed by other individuals: IPH has a higher proportion of cases among women from 35 to 55 years old (48%). Conversely, females killed by other individuals have a higher proportion in younger women (51%). Figure 1.



Figure 1. Age distribution of femicides by intimate partner and non-intimate partner, Georgia 2014

Age distribution differed across races: while 39% of Black/African Americans were killed at a younger age (26 to 35 years), 30% of White women were killed at a mature age (>56 years), see Figure 2. It is noteworthy that the level of schooling education of the victims is low: 37% of the

victims had a high school, 17% some college, 11% had 8th grade or less, 7% had an associate's degree, and 7% had a Bachelor's degree. Most of the woman victims were employed (72%) and a few (18%) were occupied as a housekeeper.



Figure 2. Distribution of age group among race. Femicides. Georgia 2014

Most of the perpetrators were actively in a relationship with the victim; perpetrators were most often spouses (59%), boyfriends (26%); former boyfriends (5%); and former spouses (4%). The marital status of the victim and perpetrator were concordant with relationship as spouse, being married (59%), never married (20%), divorced (17%), separated (2%).

Firearms were the most frequently used weapon (61%), followed by sharp instruments (15%), strangulation or suffocation (11%), and a blunt instrument (4%). In four cases, there was evidence that the suspect used two different kinds of weapons to cause the death of the women. One case used a combination of a blunt and sharp instrument; in another, a combination of strangulation and a blunt instrument were used.

About 81% of the incidents occurred in a residence (44 cases). Of these, 50% were murder-suicides and 50% a single homicide. Murder-suicides involved White women in 56% of the cases. In contrast, 64% of single homicides involved Black/African American women.

In 22% of the cases, the investigation of the Coroner-Medical Examiner (CME), or Law Enforcement (LE) established that the victim was trying to leave the perpetrator or had recently separated/broke-up the relation.

The distribution of cases over the year presented a greater number during December (18%), October (14%), and April (12%).

During 2014, the counties with high prevalence of homicides and other crimes were also the places with a majority of Intimate Partner Homicide (IPH), that being Fulton, Dekalb and Cobb Counties with the highest proportion of homicides, femicides and IPH.

County	Population	Crimes	Murder	Femicides	IPH	Femicides crude rate	IPH crude rate	
Fulton	1,010,562	57,675	139	19	5	1.9	0.5	
DeKalb	734,871	42,455	94	17	3	2.3	0.4	
Cobb	741,334	19,317	23	6	4	0.8	0.5	
Gwinnett	895,823	20,875	37	6	3	0.7	0.3	
Muscogee	200,579	14,509	22	4	2	2	1	
Chatham	286,956	11,484	33	4	3	1.4	1	
Bibb	153,721	9,423	16	3	2	2	1.3	
Richmond	201,793	3,471	7	4	2	2	1	
Liberty	62,467	2,111	4	2	2	3.2	3.2	

Table 2. Proportion of femicides by County. Georgia 2014

Crimes include: Rape, Robbery, assault, burglary, larceny, and vehicle theft

Sources: Georgia Bureau of Investigation, Crime Statistics 2014 & United States Census Bureau, 2010 Rates per 100.000 indicates (number of homicide deaths/population from 2010 U.S. Census)*100.000
A high percentage (74%) of incidents in the CME or LE identified the woman's death in association with other criminal activity: most often robbery or drug-trafficking.

The mean age of perpetrators was 46.3 years (N=45, SD=12.8; range 20-75); 55% of perpetrators were Black/African American and 27% White. In 35% of female cases, the perpetrator had a previous history of IPV, and 11% were previously arrested on charges of domestic violence or had a criminal history.

The perpetrator had a combination of mental problems (e.g., depression, post-traumatic stress disorder, dementia, paranoid behavior) and alcohol or drug use in 22% of cases. In two cases, the perpetrator showed a clear pattern of stalking.

In 24% of the cases, one or more minors were present during the incident. These children either witnessed the murder or found the body of their mothers.

DISCUSSION

Georgia has a population of over 10 million people (estimated for 2014) and is the ninth largest metropolitan area in the United States ("United States Census Bureau 2010,") with 62% White, and 32% Black/African American. These demographic characteristics of the population play an important role in trying to explaining and prevent IPV and subsequent IPH. It is well known that IPH perpetrator in the United States are disproportionately poor men, young, a member of an ethnic minority group, have a history of other violence, and have a history of substance abuse (Campbell et al., 2007). Our findings are consistent and confirm that for 2014 women murdered by their male partners shared similar features. Being African American in comparison to White and low education were main characteristics of intimate partner homicide. According to Campbell (Campbell, 2005), Black/African American men in United States are much more likely to be unemployed or underemployed, being a major risk factor for IPH rather than race.

The mean age of the victims (41 years old) might be hypothetically related to a long relationship period with their perpetrator. It is well known that violence inflicted by perpetrator intensifies over time, making it more likely for these women to have sought any kind of assistance. We cannot say how likely it was for the women in this study to go to a hospital setting, but previous research has demonstrated that women in abusive relationship went to a clinical setting for treatment of IPV related injuries within two years prior to their death in 45% of the cases (Sprague et al., 2016). There is a need for integrating the programs into clinical setting to refer and capture those women more effectively. Also, it is imperative the continue sensitizing of health professionals on IPV to evaluate the risk of those women depending on frequency, severity, and type of injury.

A consistent association across many studies has found that estrangement is a risk factor for IPH (Campbell et al., 2007). In our findings, separations, breaking up the relation, or the attempt to separate appeared to act as a trigger, as described in the narratives in 22% of the cases. The intention of women to leave the relationship and a recent separation are the most dangerous periods increasing the risk of femicide (Campbell et al., 2007).

The identification of risk factors like stalking (Campbell et al., 2003; Munjal, 2012) and perpetrator alcohol or drug use (Naimi et al., 2016) were present in some of the cases. Calling our attention to that indicating only one risk factor but not multiples. Given the dynamics of control over the victim, it might have been present for more than one risk factor in many more cases, but the information of the cases did not reveal it. Stalking was a clear perpetrator's behavior in two of the cases. In 13 different cases (24%), the perpetrator had history of alcohol or drug use, or depression or other mental problem.

Firearm is widely recognized as a main risk factor (Campbell et al., 2003; Siegel & Rothman, 2016; Stockl et al., 2013) that, combined with other aspects, potentiate the risk of a fatal death. A perpetrator's gun possession or access was present in most cases (61%), especially for those who committed suicide after murdered their partner. From the narratives, it was established that perpetrators with mental illness or drug/alcohol consumption used a firearm to kill his partners in ten cases. Also, narratives of homicides perpetrated by firearm allowed us identify four cases which the perpetrators had previous history of IPV or had an effective PO. This finding corresponding with the observation that Georgia Domestic Violence Fatality Review project

(Aszman & Thompson, 2015) had made about the gaps existing in victims' protection of PO petitioners.

Education and employment status of the majority of the victims reflect the possibility of those women to be self-providers. This leaves us with the question of why this factors were not protective for those women. This findings also ratifies the fact that more research are needed to define the particularities of Georgia women population impacted by IPV. Also is important to establish the impact of the resources available in Georgia for prevention and detection of IPV cases.

The major limitation of this study was the discrepancy found in the information provided by CME and LE around IPV. Particularly for 2014, the discrepancy in the identification of intimate partner violence (28 cases) brought bias to the quantitative analysis. However, from the qualitative perspective, it was advantageous having two different sources of circumstances that were, in many cases complementary, capturing more information of the event, circumstances surrounded the death, and characteristics of the relationship.

CONCLUSION

Our findings ratify common risk factors present in the circumstances of IPH in Georgia. The characteristics of IPH share important similarities with other studies in regard to characteristics such as a perpetrator's alcohol or drug consumption, gun access, a women's intention to leave the relation, and home occurrence. However, women murdered by intimate partners in Georgia showed differences compared to what was pointed out by the literature in terms of age, education, and employment status. These results provide local authorities, health care professionals, and organizations basic information that can be used to formulate primary detection and control strategies to decrease IPH.

IPH occurrence is affected by all social and community instances (community control organizations, judicial, economic and education systems, and cultural values). None of the levels should act separately to prevent IPV and subsequently IPH. This interaction between the different institutions should have a certain coordination to identify and protect a victim.

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CHAPTER 3. PUBLIC HEALTH IMPLICATIONS

The primary finding of this study shows that most of the women murdered by intimate partners already had a history of violence within their relationships. This outcome, combined with the presence of risk factors like stalking, drug or alcohol use, firearm possession, estrangement, and mental illness among the study cases, suggests that it is important for the field of public health to recognize the opportunities in intervention to prevent future homicides.

Efforts and advances in legislation have made a dramatic transformation in the response to IPV in the criminal justice system, lowering IPH rates. However, these advances were not enough for the victims of this study. Advocacy, safety planning, and risk assessment are important elements that should be considered, mainly for Law Enforcements and medical staff. These two entities are paramount in the attention of victims, and more efforts should be devoted for them to properly recognize and evaluate IPV risks. This purpose can be accomplished adopting tools like Danger Assessment questionnaire, developed by Campbell (Campbell, 2005), that help measure women's risks in abusive relationships. For this kind of case, time is an important factor in preventing a fatal outcome. Danger Assessment results could be coordinated with services to timely and aptly refer women.

Although GA-VDRS has information that is routinely captured from primary resources, many are not relevant to IPH cases, such as: random violence, other crime in progress, nature of other crime, among others. In addition, the lack of information related to perpetrators prevents the characterization of IPH events. For the present study, narratives allowed us to identify such characteristics, the dimension of the violence, and risk factors. Thus, the GA-VDRS surveillance system should consider evaluating the possibility of including information for perpetrators and collect only relevant variables for IPH.

To conclude, our findings reflect a need to focus future research on define the particularities of female population of Georgia affected by IPV. Research can also turn its attention to establish the impact of the services and resources available in Georgia for prevention and detection of IPV cases. Because IPH occurrence is affected by all social and community instances (community control organizations, judicial, economic and education systems, and cultural values), none of them should act separately to prevent IPV and subsequently IPH. This interaction between the different institutions should have a certain coordination to identify and protect victims. Then, it is imperative for research to focus on the integration of services and coordination through institutions to detect and refer victims timely manner.

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